SPONSORS
FEB. 28,2003

CFM Migration Strategies

- Opportunity:
  - Implementation Timeline: 3.5 years vs. 4.5 years
- Impacts:
  - Risk Assessment
  - Business Benefit Impact
  - Cost Implications

Risk Assessment - Plan A

4.5 Year/2 Phase Approach

Risk Improvements

+ Spread internal Change Mgmt (Call Center/Field vs Billing/Customer) (900 employees vs 100 employees & 2M customers)
+ Post implementation "storm" period focused on fewer business applications and processes.
+ More time for knowledge transfer and support from project resources

Risk Mitigated with Technology

Risk Inhibitors

– Introduces Legacy Billing System Risks in Call Center phase (due to complex data synchronization)
– Split/Customization of SPL Package between phases
– 4.5 years is a long time to stay focused

Impacts

- Legacy Customer Billing followed by SPL Customer Billing impacts
- Back Office Gaps and workarounds during interim
- Dependency on SPL

Risk Assessment - Plan B

3.5 Year/ 1 more Phase Approach

Risk Improvements

+ Limits legacy integration - (Nicor can focus on new technologies)
+ Project Management Best Practice - shorter is better
+ Longer and staged Operational Readiness Test (12 months vs 8 months) - Business Readiness improved.
+ Back Office impacted once not twice.
+ Understand Billing requirements and risks sooner
+ Legacy is a fallback option

Risk Inhibitors

– End Users and Customers impacted simultaneously in one additional step implementation
– Field change management will get less focus
– Post-implementation "storm" period on 3 major business processes together.

Impacts

- Business Disruption all at once

Risk Mitigated with People

Business Benefit Impacts

4.5 Year12 Phase Approach

+ Field/Call Center Benefits realized mid-year 2005
– Billing Benefits realization delayed 2 years - mid-year 2007

3.5 Year/1 Phase Approach

+ Unisys Downsizing achieved several years earlier
+ Billing benefits and flexibility achieved 1 year earlier - mid-year 2006
– Field/Call Center Benefits delayed 1 year - mid-year 2006

Cost Implications

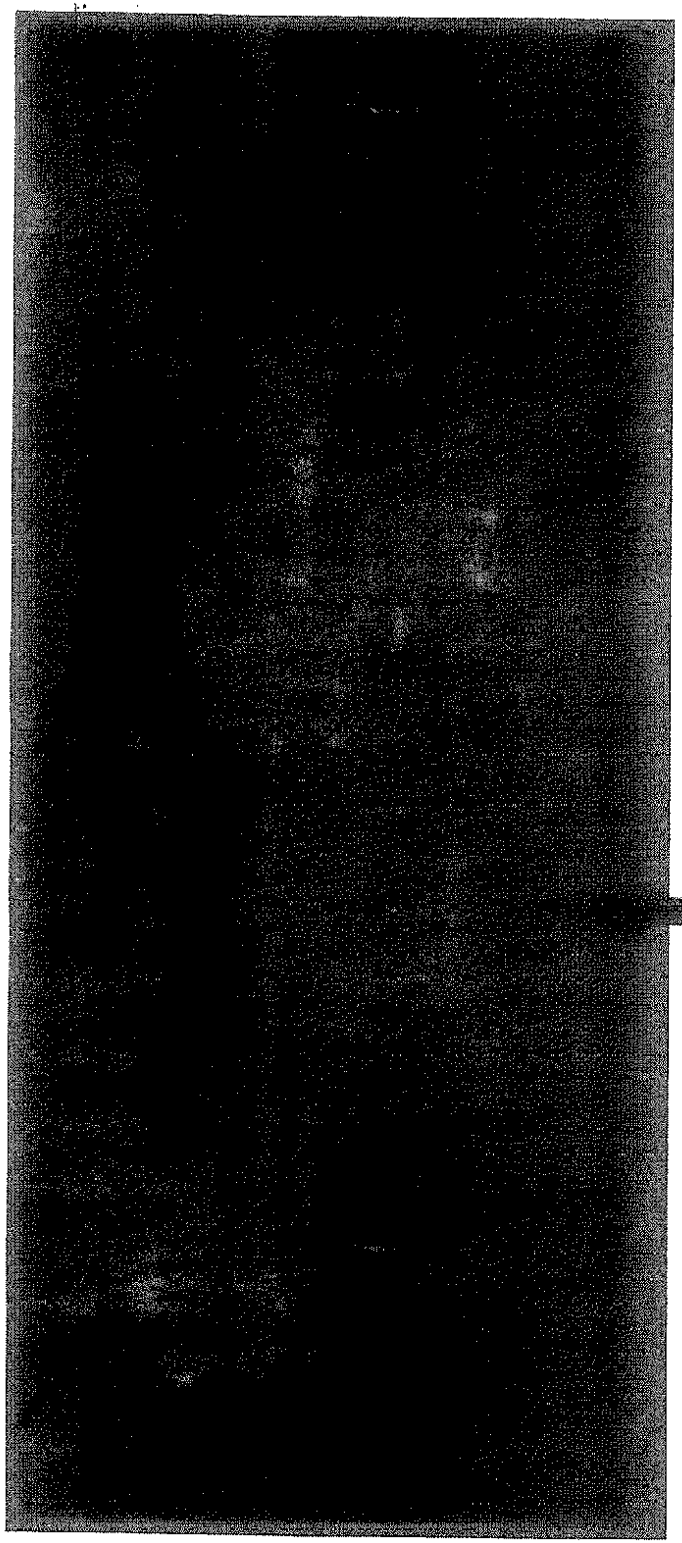
4.5 Year/2 Phase Approach

+ Cash Flow spread out
+ Nicor resource contribution mix is higher

3.5 Year/1 Phase Approach

+ Overall NPV improved by +$5M
+ Lower overall cash outlay ($7-8 million)
+ Integration Effort Reduced 5-10,000 days
+ Lower overall Testing Effort
+ Lower Project Management
+ Lower Contingency
+ Lower total post-implementation effort
– Higher annual cash outlay
– Delay in direct benefits

2004 FUNDING



Customer Care & Field Force Management Project

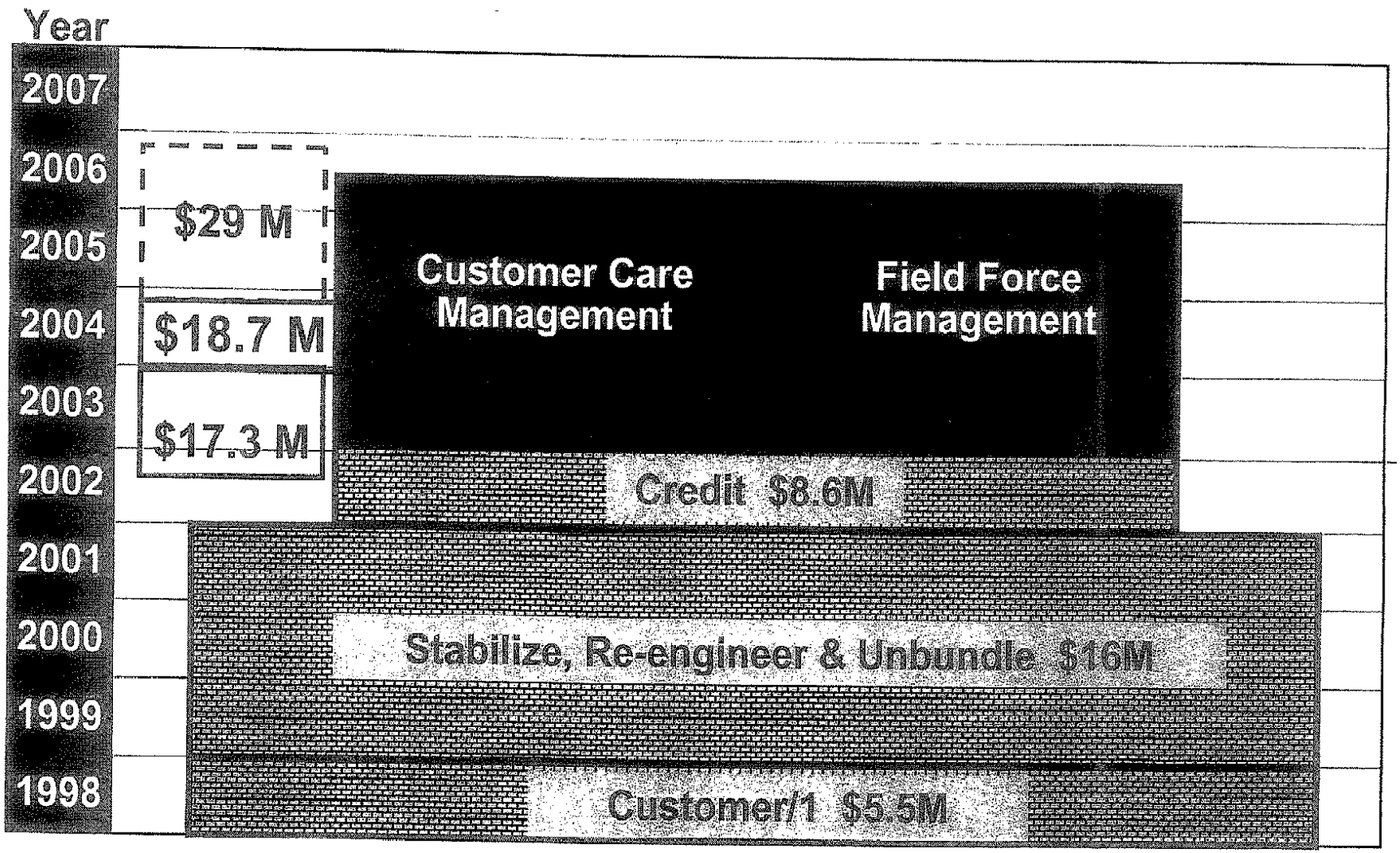
Kevin Kirby

November 7, 2003

Financial Policy Committee

Customer Care & Field Force Management

Building the Foundation for Customer Care



All Dollars reflect capital expenditures

WP (F-4) 4 106/117

Customer Care & Field Force Management – 2004 Estimate

	Capital Dollars
Hardware Purchases	$2.8
Software Purchases	$1.2
Software Developrnent Labor	$14.7
Total 2004 Capital	$18.7

All Dollars reflect capital expenditures

WP (F-4) 4 10/1/17

Customer Care Project
Total Capital Spending($millions)

	Capital Dollars
Customer/1 Analysis	$5.5
Stabilize, Re-engineer, Unbundle	$16.0
Release 1 (Credit)	$8.6
Release 2 (CFM)	
2002/2003	$17.3
2004 (Requested)	$18.7
2005/2006 (Estimate)'	$29.0
Total Spending	$95.1

All Dollars reflect capital expenditures

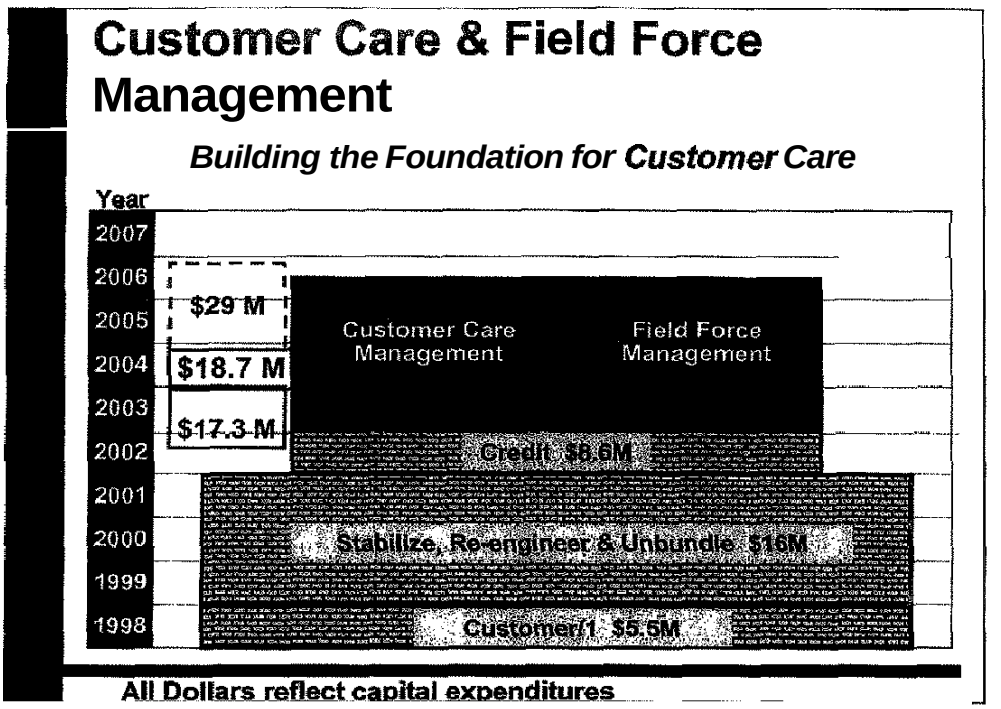
WP (F-4) 4 108/117

Customer Care & Field Force Management Project

Kevin Kirby

November 7, 2003

Financial Policy Committee



*Today, I would like your approval for $18.7 million for capital funding for the Customer Care and Field Force Management (CFM) System project for the year **2004.** Our **total** cost estimate is **$70** million for both capital and operating expense for this 3 **1/2** year project.

•**Today's** request for additional capital funding of $18.7 million will bring the total capital authorization to $36 million. We have also included **$400,000** in our **OE** budgets for **2004.**

Customer Care & Field Force Management – 2004 Estimate

	Capital **Dollars**
Hardware Purchases	$2.8
Software Purchases	$1.2
Software Development Labor	$14.7
Total 2004 Capital	$18.7

All Dollars reflect capital expenditures

***This2004 capital funding will primarily be used for the construction portion of the project. Building of the interfaces and configuration of the two packages. Some infrastructure will be put in place to support this development effort and prepare the technical environments for testing.**

Customer Care Project
Total Capital Spending($ millions)

	Capital Dollars
Customer/1 Analysis	$5.5
Stabilize, Re-engineer, Unbundle	$16.0
Release 1 (Credit)	$8.6
Release 2 (CFM)	
2002/2003	**$17.3**
2004 (Requested)	$18.7
2005/2006 (Estimate)	**$29.0**
Total Spending	$95.1

All Dollars reflect capital expenditures

• The total capital cost of our projects is $95.1 million. Release 2, CFM, will total approximately $65 million capital over this 3 1/2 year period. An additional $3-5 million of Operating Expense will also be required.

nicor

Nicor Gas Company
Customer Care Systems Executive Summary
November, 2002

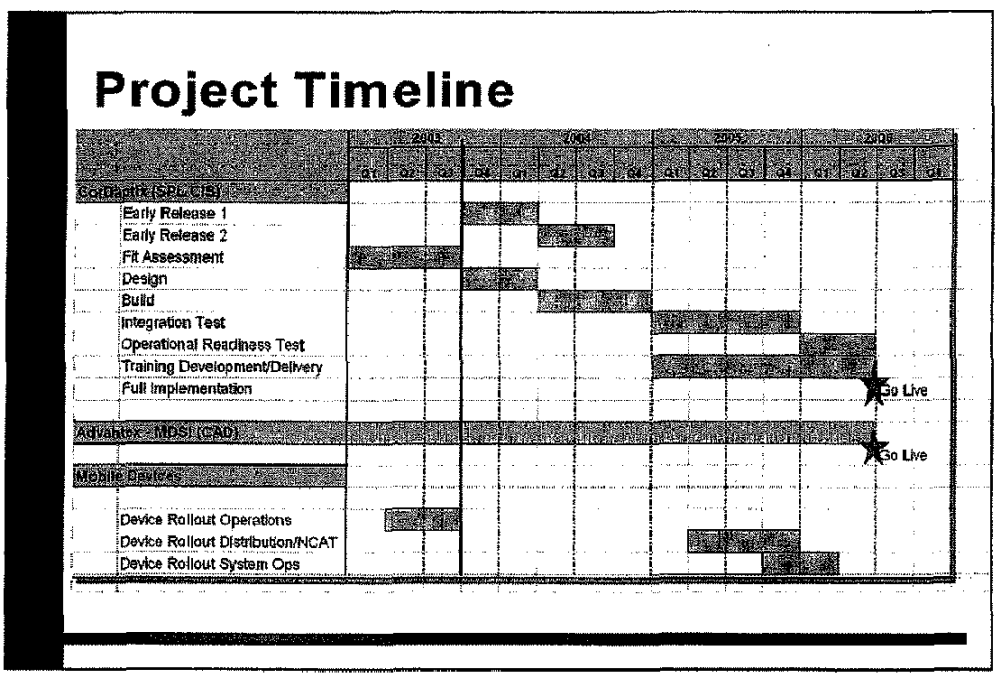
n'able power to do more.

Update** May, **2004

IV. CFM Project becomes the n'able Project

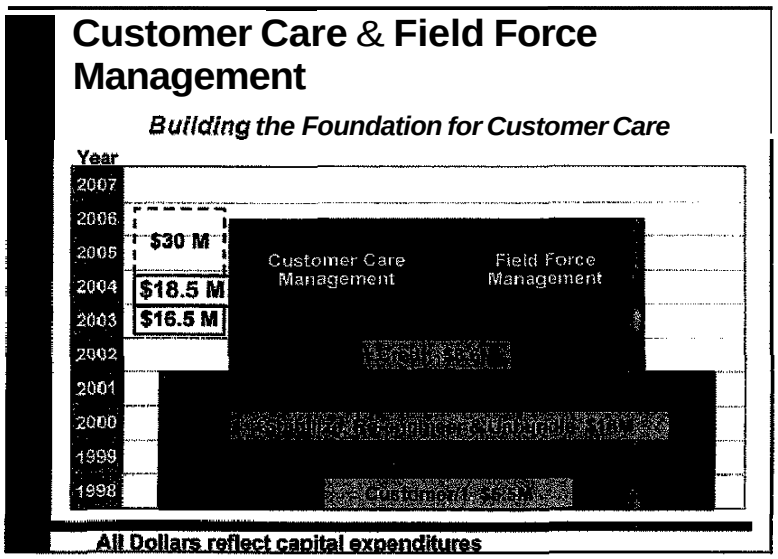
Risk Mitigation: In late **2002** and early **2003** business requirements for this next phase of the project were defined. Then, following our system development life cycle methodology, a high level fit assessment began, As designs were drawn for the integration of the legacy billing systems with the new CIS system in a two-phase approach, it became apparent that significant risks to Customer Billing were being created with our proposed approach.

As a result, the team was asked to draw up an optional plan that would change the 4 ½ year two phase implementation into a 3 ½ year single phase implementation. With this, several interim releases of functionality were defined and planned for in order to mitigate some of the risk of a "big bang" implementation risk.



The interim releases provide several benefits. 1. Change Management – by exposing additional people to the use of CorDaptix and Advantex early, some of the natural learning curve can be done in advance; 2. Technology – implementation of lower volume and less critical functionality will allow for the testing of some of the newer technologies such as EAI; 3. System Health – utilizing peripheral techniques such as reporting and purge/archive in advance of larger volumes will lead to a better understanding of the impacts for full volumes.

Funding: As a result of the change in the project timeline, a change in the funding flow was requested and approved by the board in April 2003. Overall capital spending on this phase is still expected to be around $65 million.



Key Statistics: The overall size and structure of the project is summarized as follows:

Departments & Involvement

Field

- Dispatching Operations
- Workload Administration
- Distribution
- NCAT
- System Operations Locating
- Collectors

Call Center

- CSR's
- Builder First

Back Office

- Billing Quality Assurance
- Remittance Processing
- Correspondence
- Credit
- Miscellaneous Billing
- Gas Transportation Rates
- Information Services

Governance

- Accounting
- Auditing
- Forecasting
- Rates

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Work

Billing

Downloads/Uploads - Meter Reading
Estimations
Exceptions - Hi/Low Changes
Auto Cancel/Rebill
Retail Access
Nicor Services
Bi-monthly Billing
Bill Cycles
Other Monthly Billing
Interest Calculation
Budget Billing
Non-Service Billing
Cancel/Rebill
Bill Print
eBill Enrollment
Summary Billing
Create Transcript Screen
Tariff Model
Test Billing
High Bill Complaints
OpenCSF - Bill Print Changes
Transportation Billing Interface

Revenue Reporting
Interface with G/L
Cash Posting
Sharing Program
Returned Payments
LIHEAP
EFT

Call Center

Create/Maintain Bankruptcy Info
Create Severence
Determine account and action for Collection
Skip Tracing
Credit Bureau Reports
Process Account Charge-off
Collection Agency Reporting
LPC
Refunds
Maintain Reconnect Program
Process A/R Adjustments
Process Transfers
Credit Scoring
Deposits
DPA
Pay Plan

Correspondence
Letters - Extracts/Formatting
GLCG/Clean & Check
Surveys
Call Tracking
Customer Acct/Info
New Premise
E-Care
Pick-Offs

Orders/Field

Appointment Booking
Credit/Collections
Field Work BPA's
Maintain Orders
Mercury
Start/Stop
Unpostables
work Routing
Reid Work Completion
Field Work Creation Upload
Field Work Issuance
Maintain Meter/Equipment
Outage - CDX
Trouble Order Tracking

Job Checking
lob Code Translation
Map Based Dispatching
GPS
Customer Signatures
Maps
Meter Validation
Street-level Routing
Time Reporting

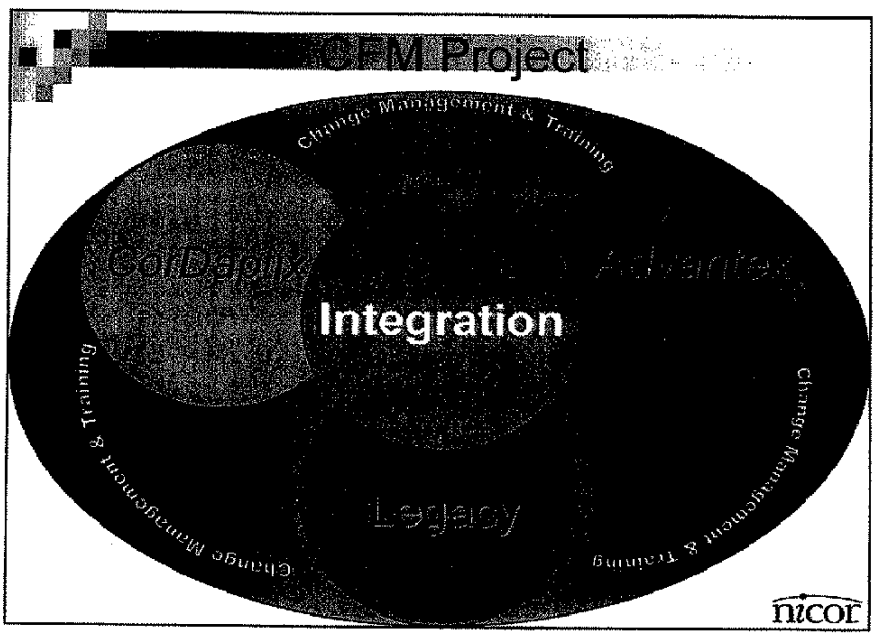
nzcor

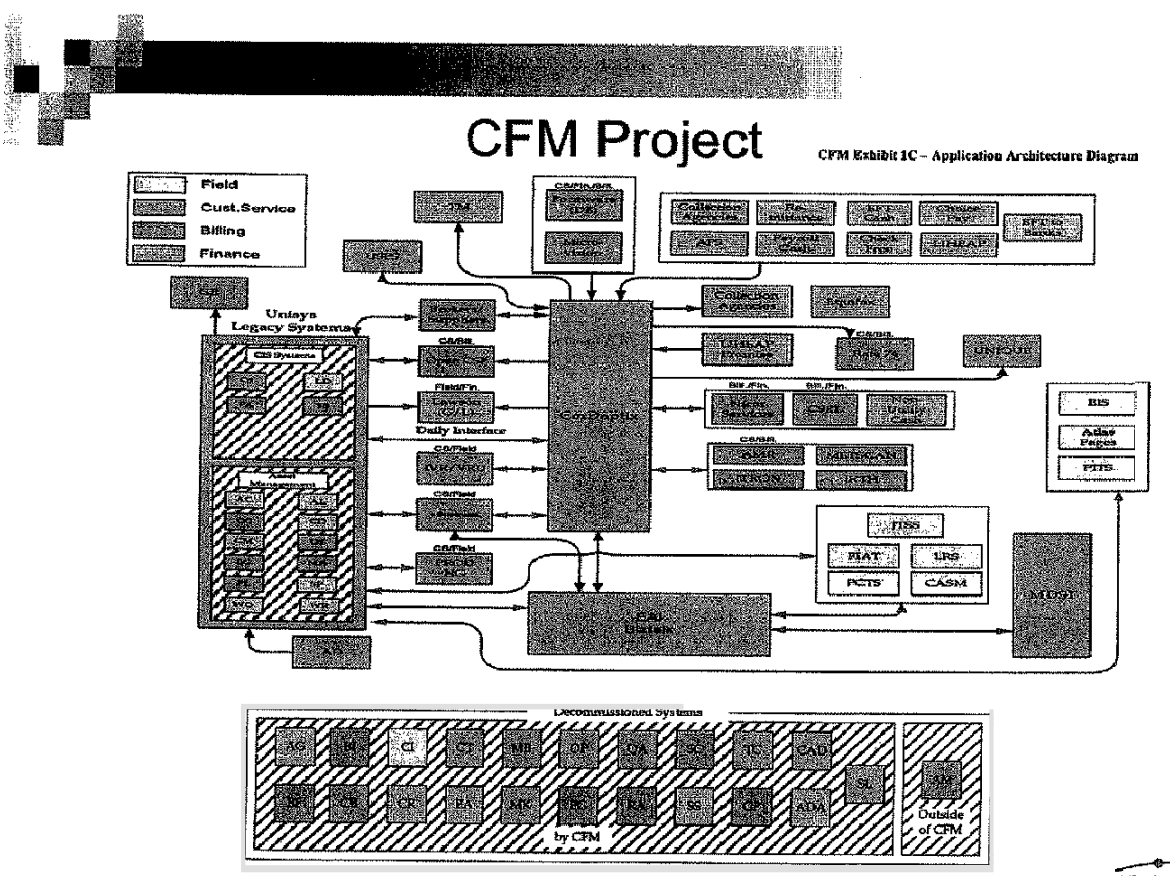
sting CFM Facts

- a 60.000 Days of Effort
- ■ 80 Resources at Peak
- ■ 55% provided by Nicor
- a Financial Structure
  - □ *$20 million Hardware/Software Purchases*
  - □ *Obtained Fixed Bid Labor Contract with Integrator (Accenture)*
- a Leadership/Business Involvement
  - □ *8 Executives on Sponsor Team*
  - *u 3 Leadership Teams*
  - □ *Oversight Team & Governance Team*
  - o *Change Network*
  - □ *I I Business FTE's Planned on Project*
- ■ Approximately 20 Systems *to* be Decommissioned

nicor

Application Architecture – Future State



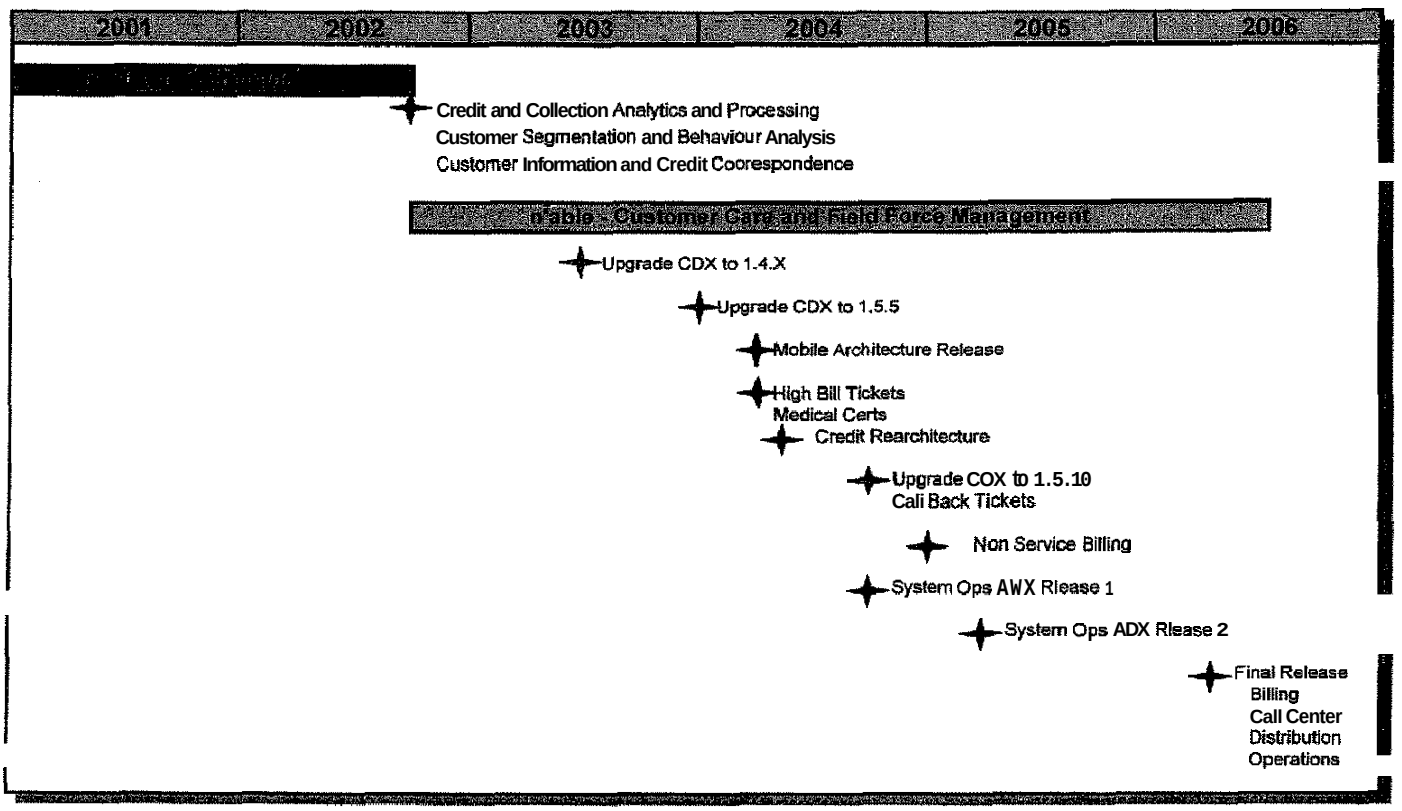


nicor

Interim Release Update May 2004

Interim release options are continuing to be considered and implemented. Implementation of High Bills, medical Certificates and Complaints has been completed. Roll-out of the new mobile architecture infrastructure was deployed to the Operations department, which will provided updated atlas maps on a more timely basis. Re-architecting of the Credit data model was completed to support the long-term plan. In addition, the upgrade of the base software has been completed twice as part of production support.

Work continues on additional releases. These include:
1. Customer Contact (Callbacks) deployment to 350 end users
2. Roll-out of EAI with the initial implementation of Advantex to System Operations.
3. Implementation of several components of the Billing infrastructure to support non-service billing. This includes Bill Print, Cash Posting, Bill Calc, A/R and General Ledger interfacing to name a few,



Final Release – May *2006*

Plans are still tracking to support a final release in May **2006.** Most of 2004 will be dedicated to the build, configuration and unit testing. **2005** will be dedicated to integration testing and the start of the Operational Readiness Test **(ORT).** In addition, the development of training material will be completed. 2006 will be focused on completion of ORT, training and business readiness.

WP (F-4) 5

Gas Distribution Improvement – New Station

(ANR)

NICOR GAS COMPANY
FINANCIAL POLICY COMMITTEE/
BOARD OF DIRECTORS APPROVAL

NEW PROJECT

Budget Item No. 740 –Transmission

Capital investment costs associated with the installation of a transmission station to control the operating pressure off of ANR's mainline, installation of 8.8 miles of 12" transmission main and a distribution station. This proposed investment is required to accommodate future demand growth in the Yorkville area and to provide necessary system security.

Total Authorization $8,260,000

Approved by Financial Policy Committee

Secretary

April 11,2003
Date

Approved by Board of Directors

Secretary

Avril30.2003
Date

Nicor Gas PLANT BUDGET AUTHORIZATION REQUEST 4009 3-03 Page __ of __

Note: Use additional pages if more space is needed.

BUDGET ITEM NO.	A/U NO.	REGION	CAPITAL TYPE (see back)	AFUDC (see back)	Estimated Expenditures			
740	323	Central	Transmission	☒ Yes ☐ No	Year	This Request	Previous Authorization	Total Authorization
Activity # Investment	108013		179451	PARTIAL AUTHORIZATION ☐ Yes ☒ No	2003	~~$742,000~~ Ø	$ 742,000	$ 742,000
Activity #	108035		179452		2004	$ 7,518,000	$ 0	$ 7,518,000
Activity # Investment	108037					$	$	$
Activity # Retirement						$	$	$
FILE NO.	NBA / MR / PI / SI NO.		ESTIMATED START DATE	EST. COMPLETION				
			Year 2003	Year 2004	Retired	$	$	$
			Quarter 3	Quarter 4	Total	~~$ 8,260,000~~ 7,518,000 $ 8,260,000	$742,000	$ 8,260,000

Project Location
Rte 30 and 2.2 miles east of Rte 47, Montgomery

Project Description
Nicor Gas will construct, own and operate a transmission station, 8.8 miles of 12" lateral and a distribution station. ANR pipeline will construct, own and operate a tap and meter station.

Alternatives Considered
Guardian meter station and lateral, Troy Grove line lateral, Aux Sable line lateral, and ANR meter station and smaller diameter lateral.

Reason for Request
The growth projection for this area requies additional supply to serve the new customers. In addition, the project will provide system security for the Yorkville, Montgomery, Oswego, Plainfield, and Aurora area.

Reason for Budget Revision
ANR's in-service delays and ANR's increased construction casts.

For Revisions Only	Reimbursable?	Income Taxes on Reimbursable Projects	Included in overall budget?
Revision: ☒ 1 ☐ 2 ☐ 3 ☐ 4	☒ No ☐ Yes ___%	☒ No (Public Interest) ☐ Yes (Private Party) see instructions	☒ Yes ☐ No Dollars and year(s): $742,000 in 2003

Operating Expense Impact (specify in detail)

Economic Assessment Data

Item (see page 2)	Value
Cost of Capital (after tax)	10 %
Net Present Value at C/C (after tax)	$ (12.2 mm)
Internal rate of return (IRR), if applicable	n/a %

See 2-24-03 Financial Analysis - Includes total revenue requirements analysis.

Treasurer's Office Approval $770K ANR Meter Station

Date 3/28/03

Robert Medra

* Alternative SIA (2-24-03 Analysis)

Approvals

TAG APPROVAL DATE	I.T.S.C. APPROVAL DATE
PRINT RECOMMENDED BY DATE: Ted Lenart	PRINT APPROVED BY OFFICER DATE: Rocco A'Dlessandro
RECOMMENDED BY SIGNATURE: Theodore J Lenart 3/28/03	APPROVED BY SIGNATURE - OFFICER: 3/28/03
APPROVED BY CMT DATE: 4/9/03	APPROVED BY BOARD OF DIRECTORS/FPC DATE
CMT COMPLETION BY DATE	POST INVESTMENT REVIEW ☐ Yes ☐ No ☐ Undecided If yes, Quarter Year
ACCOUNTING APPROVAL - CAPITALIZED SOFTWARE	BUDGET COMPLETION/ TOLERANCE CHECK BY DATE

Nicor Gas PLANT BUDGET AUTHORIZATION REQUEST 4009 4-02

WP (F-4) 5 4/16

Page __ of __

Note: **Use** additional pages **if** more space is needed.

BUDGET ITEM NO.	A/U NO.	REGION	CAPITAL TYPE (see back)	AFUDC (see back)
740	323	Central	Transmission	☐ Yes ☒ No

				Estimated Expendiiures		
				Year	This Request	Previous Authorization	Total Authorization
...ity # Investment	108013		PARTIAL AUTHORIZATION ☐ Yes ☒ No	2003	$742,000	$	$742,000
Activity # Retirement					$	$	$
Activity # Investment					$	$	$
Activity # Retirement					$	$	$
FILE NO.	NBA / MR / PI / SI NO.	ESTIMATED START DATE Year 2003	EST. COMPLETION Year2003	Retired	$	$	$
		Quarter 2	Quarter 3	Total	$ 742,000	$	**$742,000**

Project Location
Rte 30, and 2.2 miles east of Rte 47, Montgomery

Project Description
Nicor Gas will construction own and op ite a transmission station to regulate pressure and odorize gas from a new supply source. ANR pipeline will construct own and operate 8.1 miles of 8" lateral and meter station.

Alternatives Considered
Guurdian meter station and lateral, Troy Grove line lateral, Aux Sable line lateral, ANR meter station with Nicor Gas owning and operating larger diameter lateral.

Reason for Request
The growth projection for this area requires additional supply to Serve the new customers. In addition, the project will provide system security for the Yorkville, Montgomery, Oswego. Plainfield and Aurora area.

Reason for Budget Revision

...Revisions Only ...ision: ☐ 1 ☐ 2 ☐ 3 ☐ 4	Reimbursable? ☒ No ☐ Yes ___%	Income Taxes on **Reimbursable** Projects ☒ No (Public interest) ☐ Yes (Private **Party**) see instructions	Included in overall budget? ☐ Yes ☐ No Dollars and year(s):

Mains to be installed				Cost/Foot		Mains to be Retired							
Footage	Size	Type	Class	Est.	Std.	Footage	Size	Yr. Installed	Type	Footage	Size	Yr. Installed	Type
Feet of total main to be installed:										Feet of total main to be retired:			

Operating Expense Impact (specify in detail)

Other Facilities (installed or retired)
Transmission station to include: 4-4" ball valve regulators, pipeline heater, odorizer, SCADA equipment and necessary piping.

Economic Assessment Data

Item (see page 2)	Value
Cost of Capital (after tax)	10%
Net Present Value at C/C (after tax)	$(575k)
Internal rate of return (IRR), if applicable	[illegible]%

...surer's Office Approval
By Robert R. Mueller Date 10/31/02

Approvals

TAG APPROVAL	DATE	I.T.S.C. APPROVAL	DATE
PRINT RECOMMENDED BY	DATE	PRINT APPROVED BY VICE PRESIDENT	DATE
Ted Lenart	10/31/02	Rocco D'Alessandro	
RECOMMENDED BY SIGNATURE		APPROVED BY SIGNATURE	
APPROVED BY CPR	DATE	APPROVED BY BOARD OF DIRECTORS/FPC	DATE
CPR COMPLETION BY	DATE	POST INVESTMENT REVIEW ☐ Yes ☐ No ☐ Undecided If yes, Quarter ___ Year	
ACCOUNTING APPROVAL - CAPITALIZED SOFTWARE		BUDGET COMPLETION/ TOLERANCE CHECK BY	DATE

Confidential

Yorkville Area
Supply Analysis and Recommendation
Executive Summary

Location: Yorkville, Oswego, Aurora, Montgomery, Bristol and Plainfield

Major issues:
1. Security of the system; The existing system has only one major supply source to serve the area.
2. Growth; The projected growth rate for this area requires additional supply by next winter. An average of 2,500 additional customers per year will be connected to this system over the next ten years

Timing:
To meet the requirements of our system, construction needs to be completed prior to November 1 2003. Final negotiations with ANR will be completed after the FPC approves the project. ANR's timeline for construction is approximately 1 year from the completion of the contract.

Recommendation:
Altemate 1, ANR (see below for description) is recommended because it provides the best solution in terms of the lowest costs based on our analysis and assumptions to our ratepayers, security of this system, operational flexibility, competition with other suppliers and diversifying supply m Nicor Gas' portfolio. ANR's capital costs of $6,926,000 will be recovered through a 5-year, 25,000dth/day contract. This contract will include a firm transportation charge of $0.14/dth/day and a capital cost recovery charge of $0.2570. These charges will be included in the PGA.

Nicor Gas would be required to invest $742,000 to construct a transmission station downstream of ANR's facilities to regulate the pressure down to our distribution system pressure and odorize the gas.

The total project capital costs is estimated at $7,668,000. Final negotiations with ANR will be completed after the FPC approves the expenditure for the project, subject to a cap of $8,700,000. If negotiations can not be completed under this cap, the FPC will be asked for additional approvals.

Five alternatives reviewed:
1. ANR installs 8.1 miles of 8" pipe and Nicor Gas installs a transmission station. A firm transportation contract would be required to supply this system from ANR for 25,000 dth/day over a 5- year term.

2. Guardian installs 11.9 miles of 12" pipe and a transmission station. A firm transportation contract would be required to supply this system from Guardian for 25,000 dth/day over a ten-year contract An upstream pipeline contract would be required to supply Guardian.

3. Nicor Gas installs 9.8 miles of 12" pipe, a transmission and distribution station. A firm transportation contract with an upstream pipeline would be required to supply Nicor Gas' transmission system.

4. Nicor Gas installs 11 miles of 16" pipe, a transmission and distribution station. A firm transportation contract with an upstream pipeline would be required to supply Niwr Gas' transmission system.

5. Niwr Gas installs 8.1 miles of 12" pipe, a transmission and distribution station. A firm transportation contract would be required to supply this system from ANR for 25,000 dth/day over a 5-year term.

	Alternate 1*	Alternate 2	Alternate 3	Alternate 4	Alternate 5
Total Capital cost	$7,668,000	11,230,000	$9.600.000	$18,730,000	$9,000,000
Net Present Value	($9,843,000)	($22,933,000)	($13,100,000)	($24,800,000)	($12,200,000)
30 year levelized revenue requirement	($1,044,000)	($2,433,000)	($1,385,000)	($2,630,000)	($1,290,000)

* Includes ANR's current pricing

nicor GAS

MEMORANDUM

Date: October 31.2002

CONFIDENTIAL

Subject: Yorkville Interconnect Recommendation

From: Dan Fox

To; Ted Lenart

cc: Len Gilmore

A review of supply to the rapidly growing Yorkville **area,** which includes Yorkville, Oswego, southwest Aurora, Montgomery, Bristol and western Plainfield has been completed. The following information provides a brief overview of the system, forecasted growth for the area, system issues, possible solutions and a recommendation to address the issues discussed.

Background

The Yorkville area, a majority of which is located on the west side of the Fox River, has one major source of supply to the 155 psi system, which is Station **220,** Frontenac, located on the east side of the Fox River. This station's source of supply is Nicor Gas' *36"* Aux Sable transmission line. There are other smaller supply sources that connect to lower order systems on the west side of the Fox River, but they have limited capacity. Growth along the Rte *30* corridor, west of the Fox River has strained the system in this area. The growth has been primarily residential and some industrial over the past five **years.** The city planners for each of the towns in the area have provided long term models for growth. This information along with, information received from developers in this area, have provided Engineering a method to develop a ten-year estimate for growth in the Yorkville area.

Issues

There are two major issues that require attention in the Yorkville area. System security for this area is the first major issue that needs to be discussed due to the large number of customers that depend upon this single source supply. The existing system's major supply source is a single 24 mile segment of pipe that consists of a combination of 16", 12" and 8" 155 psig system, which crosses the Fox River. This area is primarily residential; however, there is a substantial industrial load in Montgomery. Caterpillar, **the** largest industrial load in the area, has recently added cogeneration facilities that have increased their load to 792 MCFH. To serve their cogeneration load, a minimum pressure of 90 psig is required. See attached System Improvement letter C2936SI for more information.

The other major system issue that requires attention is system growth. The Yorkville Area continues to add a large number of services each year. The table below indicates the growth of this area over the past 5 years and includes projections for the next **ten** years based upon city planners' and local developers' information.

Year	Number of new services
1998	2267
1999	2466
2000	2653
2001	3587
2002 (Projected)	3000
2003-13 (Projected)	2500 avg./year

At this projected growth rate, this system, within one year will be strained even though a modest growth rate is used. Ten years of growth projections is a reasonable time period to determine what the demand requirements will be for this system and what system improvements will be required to serve this new load. Engineering has determined that the existing system can not support additional growth much beyond 2002-03 winter. Based on these growth projections, a system improvement will be required to serve this growth.

Goals

During the review of this project, goals were established to focus the attention on criteria that will provide the best alternative to help Nicor Gas meet its objectives. The solution must resolve the two major issues: system security and growth, along with providing the lowest cost to our ratepayers, operational flexibility, and diversify our supply sources. To meet these goals, five alternatives were developed for evaluation. Each alternative will provide enough capacity to meet the 10-year growth projections for the Yorkville area, but provide differing degrees of system security. The best solution to meet Nicor Gas' objectives was determined by evaluating each alternative on capital costs, transportation costs, operating expenses, system security, and operational benefits.

Alternative 1

ANR Pipeline would be required to install 8.1 miles of 8" pipe, a meter station and a Nicor Gas transmission station from their mainline to Nicor Gas' 12" 155 psig system located on Rte 30, 2.2 miles east of Rte 47, in Montgomery. Nicor Gas could contract for firm transportation service from ANR for 25,000 Dth/day. The term of this contract would be for 5 years. Nicor Gas' contract with ANR would reflect the value of the transportation service and ANR's cost of capital.

ANR plans to operate this 8" transmission line at their mainline operating pressure, which exceeds 800 psi. This line will be installed, operated and maintained by ANR. The size, pressure rating and location of the lateral will require this line to be heated as a transmission line. To reduce the operating pressure at the end of the lateral to Nicor Gas' distribution pressure, Niwr Gas would install a transmission station.

Estimated Capital Cost $7,668,000

Alternative 2

This alternative would require Guardian pipeline to install 11.9 miles of 12" pipe, a meter station and a Nicor Gas transmission station from their mainline to Nicor Gas' 12" 155 psig system located on Rte 30, 2.2 miles east of Rte 47, in Montgomery. Guardian Pipeline, which is currently under construcbon, is scheduled to be in service by December 1,2002. It is expected to transport gas from the Joliet area to the Wisconsin market through a single, 36" line, operating at pressures near 1000 psig. Guardian Pipeline's only source of supply is in the Joliet area, consisting of the following pipelines: NGPL, Northern Border, ANR, Vector and Alliance.

To secure firm transportation to the Yorkville area, Nicor would incur transportation charges from both Guardian and another pipeline or supply source upstream from Guardian. Nicor Gas could contract for

firm transportation service from Guardian Pipeline and one of the following: ANR/Natural/Alliance/ Northern Border for **25,000** Dth/day. The term of this contract would be for **10** years.

Estimated Capital Cost **$11,230,000**

Alternative **3**

Nicor Gas would install **9.8** miles of 12" pipe, a transmission and distribution station from the Troy Grove **30"** Line to the 12", 155 psig system, located on Rte 30, 2.2 miles east of Rte 47, in Montgomery. This lateral would operate at **300** psig. The Troy Grove Line is already at capacity in this area due to system demands on our Troy Grove Storage field. To free up this source of supply, additional volumes must be connected to the aquifer system in the correct location to be effective. Nicor Gas could contract for firm transportation service from one of the following: ANR/Natural/Alliance/Northern Border for **25,000** Dth/day.

Additional transmission facilities may be required to support this alternative, depending on the location of the incremental replacement volumes. These costs are not included in this analysis.

Estimated Capital Cost **$9,600,000**

Alternative 4

Nicor Gas would install **11** miles of 16" pipe, a transmission and distribution station from the Aux Sable **36"** Line to Nicor Gas' 12" 155 psig system Iocated on Rte 30, 2.2 miles east of Rte 47, in Montgomery. This line would operate at **300** psig. Nicor Gas would contract for firm transportation service from ANR/Natural/ Alliance/Northern Border for **25,000** Dth/day.

Estimated Capital Cost **$18,730,000**

Alternative 5 **(similar** to Alternative **1)**

ANR would build a meter station at their mainline. Nicor Gas would install a transmission station to reduce the operating pressure to **300** psig, install 8.1 miles of 12" pipe, **and** a distribution station. These facilities will connect with Nicor Gas' 12" **155** psig system located on Rte 30, 2.2 miles east of Rte 47, in Montgomery. Nicor Gas would contract for firm transportation service from ANR for **25,000** Dth/day. The term of this contract would be for 5 years. Nicor Gas' contract with ANR would reflect the value of the transportation service and ANR's cost of capital ***for*** the metering facilities.

Nicor Gas could install, own and operate this 8" lateral **(800** psig or higher) in place of ANR as described in Alternative 1. Operating this lateral as a transmission line increases the amount of regulations and requirements to meet. Nicor Gas' operating personnel are not comfortable with operating this size lateral at this pressure under these regulations and with the possibility of personnel mistaking this line as a Nicor Gas distribution line. To match the same capacity as Alternative 1, **a** 12" line, operating at **300** psig would be required. This operating pressure and size would be within Nicor Gas' operating personnel expertise.

Estimated Capital Cost **$9,000,000**

Evaluation

As mentioned above, each of these alternatives provide the necessary volume to supply the Yorkville area for 5 years. Each lateral discussed in the five alternatives is capable of providing 40,000 Dth/day or greater on a Peak Day. **A** contract volume of 25,000 Dth/day should provide enough supply for the expected growth for this **area** over the next **5** years. At the expected growth rate, the remaining capacity could be consumed in the next **3** to **5** years following the initial 5-year contract.

Each alternative is evaluated based on operational benefits to Nicor Gas, system security, and costs to our ratepayers (transportation and capital cost recovery). Costs to the ratepayers for each alternative was calculated on a Net Present Value basis due to the varying terms and how the capital costs are incurred.

Alternative 1 (ANR lateral) provides a new source of supply to this area. ANR provides firm transportation services with direct access to producers in the Gulf Coast or the Midcontinent zone. Direct access to producers and direct access to the delivery point (Yorkville) on a firm basis is the most reliable service. ANR's lateral to Yorkville, will be a single 8" line, connected to three of ANR's mainlines that supply gas to Wisconsin. This provides the highest level of security to this system of the five alternatives discussed.

The installation of this lateral can provide Nicor Gas with additional opportunities to develop another interconnect to the west of the proposed site to supply future growth. This interconnect can be constructed when and if growth continues in that direction. If the interconnect is constructed, the 8" line would have incremental capacity above the 8 to 10 year capacity projected above.

ANR has proposed to provide firm transportation services to our system at a cost equal to or lower than our existing pipeline contracts. Their proposal contains global point aggregation of all existing delivery points (Shorewood and Hampshire), Yorkville and future interconnects (Chicago Heights and Woodstock) for balancing of daily and monthly volumes. It also includes their enhanced service, which provides hourly flexibility, at a maximum hourly rate of 1/16 of the Maximum Daily Quantity. ANR also has several other services, some of which are: DSS and NSS that may provide benefits to Nicor Gas in the future.

In the table below, a comparison of the capital cost to install each alternative is shown. Alternative 1 has the lowest capital cost of the five. It requires the least amount of and the smallest size of pipe to be installed. In the same table, the cost to the ratepayers is shown to be the lowest in terms of Net Present Value.

The estimated capital costs for the metering and lateral facilities is $6,926,000, which would be ANR's responsibility. Nicor Gas would be responsible for the transmission station capital costs estimated at $742,000.

Alternative 2 (Guardian lateral), also provides a new source of supply to this area, however, its receipt area is limited to the Joliet area. Another pipeline contract would be required to purchase firm transportation services to provide direct access to the receipt zones mentioned in Alternative 1. This alternative will incur additional firm transportation charges as shown in the table below.

This alternative does not provide the same level of system security as Alternative 1. Guardian Pipeline is a single, 36" transmission line from the Joliet area to the Wisconsin market, from an operator's point of view, is less reliable then a multiple line pipeline, such as ANR or Natural Gas Pipeline of America. It also requires upstream transport to work.

Guardian pipeline has limited services to offer due to the lack of access to storage, length of pipeline and other facilities required. Guardian Pipeline will only provide fixed hourly rates to the Yorkville interconnect. With only one interconnect on the Guardian pipeline, there are no balancing features available between points on Nicor Gas' system. This presents some operational problems, because the supply must match the hourly demand profile of this system.

Alternative 2, as with Alternative 1, could be expanded beyond its initial capacity. If growth continues, along the lateral to the west, then additional interconnects on the lateral can increase the capacity of the line. In addition, this lateral would intersect Nicor Gas' Troy Grove line and ANR. There could be potential benefits of interconnects with these two transmission lines in the future.

The estimated cost to install this alternative is much higher than Alternative 1, 3 and 5 (see table below), primarily due to the longer distance or pipe size. This alternative will also incur additional transportation costs to transport gas from the supply zones to the Yorkville interconnect (see table below).

The capital cost for this alternative would be Guardian's responsibility. If Nicor Gas decides to own and operate these facilities, additional capital spending and annual operating expense would be incurred for this project.

Alternative **3** (Troy Grove) provides a limited access to new volumes, because the Troy Grove line is already at capacity. Additional facilities would likely be required in the transmission system to provide support for our north end of our system or incremental transportation charges would be incurred to deliver additional supply to the north end of our system to replace this volume. These potential costs were not included in this analysis.

Additional supply for the transmission system will be required to replace the volume taken at Yorkville. Firm transportation costs will be incurred from a pipeline (ANR, NGPL, Alliance, or Northern Border). These additional volumes supplied by a pipeline to our transmission system could be delivered with minimal transportation services.

Alternative **3,** as with Altemative 1 and 2, could be expanded beyond its initial capacity, by installing additional interconnects along the Nicor Gas lateral. This provides for expansion in the direction that growth may continue. In addition, this lateral would intersect ANR's main line to the east, and if the line was extended to the west, approximately 2 miles, another potential supplier, Guardian, could be added. These two pipelines could provide competition for future supply into this area.

The costs estimates for Alternative **3** (see table below) are higher than Alternative 1 and 5 primarily due to the additional footage and or size of pipe required to meet the demands of the Yorkville area. Additional cost could'be incurred in the transmission system, depending on the location of replacement volumes delivered.

Alternative 3 would require Nicor Gas to invest capital and annually incur operating expense during the life of the project. The table below compares all five altematives on a net present value basis to determine the least cost to our ratepayers.

Alternative 4 (16" Aux Sable header) will provide the additional capacity and improve the reliability of the system. However, this header will provide supply from the same transmission line (Aux Sable) as the existing primary supply (Frontenac, Sta 220). This will not provide the same level of security as Alternative 1, 2, 3 and 5 due the same source of supply. In addition, this high-pressure header would be installed in a highly, populated area, which will increase the challenge for Nicor Gas to install, own, operate and maintain this line.

As with Alternative **3** and 5, additional volumes will be required to support the transmission system. Firm transportation costs will be incurred from a pipeline (ANR, NGPL, Alliance or Northern Border) to supply volumes to Yorkville. These additional volumes supplied by a pipeline to **our** transmission system could be delivered with minimal services due to the flexibility of our transmission system in this area.

This alternative has the **highest** capital costs and the highest costs for our ratepayers. It requires the largest size and or the longest length of pipe to supply the same volume as the previous altematives. The firm transportation rates would be comparable to Alternative **3.**

Alternative 5 is similar to Alternative 1, except for the size, operating pressure and the owner of the facilities. Nicor **Gas has** concerns with operating an 8" pipeline at 800 psig in a class 3 location. The last **2** miles of the line will be adjacent to new residential subdivisions. As growth continues, more of the line will be in highly developed areas. Nicor Gas' operating personnel are comfortable with operating laterals

at 300 psig or less. The lower operating pressure reduces the regulations that Nicor Gas would have to function under for this pipeline and minimize the operating risk. In order to deliver the same volume as Altemative 1, a 12" pipe is required in addition to a distribution station to reduce the operating pressures down to the local system pressure.

The benefits described in Alternative 1 also apply, except for the capital cost to install the facilities. For Nicor Gas to install, own and operate these facilities, ratepayers will incur additional costs due to higher capital and operating expense.

This alternative does provide some benefit over Altemative 1. Nicor Gas would have additional flexibility by operating the pipeline and controlling future developments along the lateral. However, Nicor Gas would have additional responsibility for maintaining a high-pressure line in a residential area.

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Capital Investment (By:)	$7,668,000 (ANR/Nicor Gas)	$11,230,000 (Guardian)	$9,600,000 (Nicor Gas)	$18,730,000 (Nicor Gas)	$9,000,000 (Nicor Gas)
Present Value of Revenue Requirement at 10% *	-$9,843,000	-$22,933,000	-$13,054,000	424,785,000	-$12,159,000
Annual Market Area Transportation Cost	$0	$867,000 **(Guardian)**	$0	$0	$0
Annual Upstream Transportation Cost	$1,278,000	$1,278,000	$1,278,000	$1,278,000	$1,278,000

* See attachment, Rates and Volume Assumptions and Economic Results

Recommendation

Reviewing the above information. Alternative 1 (ANR) addresses the two maior issues, system security and growth. It also provides the best solution in terms of cost to our ratepayers, security of this system, operational flexibility, competition, and diversifying our supply to our system. I recommend that Nicor Gas proceed **with** Altemative 1, contract with ANR for **firm** transportation services for a term of 5 years, starting November 1,2003, at a rate of 25,000 Dth/day. This will require ANR to construct, own and operate 8.1 miles of 8" pipe and meter facilities at an estimated cost of $6,926,000. Nicor Gas will construct, own and operate a transmission station at the end of this lateral at an estimated cost of $742,000. The total estimated project cost is $7,668,000. The final ANR capital cost recovery number will be determined by ANR's actual construction costs, which will be restricted by a preset, maximum cap of $8,700,000.

DAN

2-Attachments

07/01/04 CONFIDENTIAL

Yorkville Project Summary

Project Area: Yorkville, SW Aurora, Montgomery, Oswego and W. Plainfield

Purpose:
- System Integrity - Approximately 150,000 customers with a single source of supply,
- Growth - Projected 2,500 new customers per year over the next 10 years.

Original Project: (Alternate 1) Approved by FPC November, 2002.

Re-evaluation of Project:
- ANR's in service date delays,
- ANR's increased construction costs,
- ANR's increased FERC filing costs.

Also, Nicor Gas' operating personnel have re-emphasized issues with the location of transmission facilities.

October 31,2002
Alternate 1
ANR 8" lateral
Estimated Costs $7,668,000
Nov. 1,2003 In-service date
NPV ($9,843,000)

October 31,2002
Altemate 5
Nicor Gas 12" lateral, distribution station at end
Estimated Costs $9,000,000
Nov. 1,2003 In-service date
NPV ($12,159,000)

February 14,2003
Alternate 1 (ANR's revised estimated costs)
ANR 8" lateral, 7 C filing, 2004 costs
Estimated Costs $8,148,000
Nov. 1,2004 "Best case" In-service date
NPV ($11,400,000)
Nicor Gas' Capital Costs $742,000

February 14,2003
Alternate 5A
Nicor 12" lateral, distribution station at Rte 47
Estimated Costs $9,030,000
October 1,2004 In-service date
NPV ($12,200,000)
Nicor Gas Capital. Costs $8,260,000

Listed below is a brief summary of the benefits of Alternate 5A.

ANR delays and additional construction and filing costs,

Better location for transmission facilities (noise and odorant),

- Lower operating pressures in a residential area (800 vs. 155),
- Less ANR meter costs in future and Nicor Gas can control locations of distribution supplies,

Distribution headers (smaller diameter) and easy access to distribution headers,

Allows immediate service to Rte 47 (skipping developments),

- Alternate source to supply lateral from Troy Grove Line in future,
- Increased capacity of lateral (Alternate 5A).

ANR's upstream firm transportation costs are the same for each Alternate.

Recommendation:
Alternate 5A, due to the benefits mentioned above. ANR's firm transportation charge plus ANR's capital recovery costs will be $0.1692/Dth/day at 100% Load Factor over a 5-year term for 25,000 dth/day.

nicor GAS

MEMORANDUM

Date: February 25,2003

Subject: Yorkville - Project Evaluation- Confidential

From: Dan Fox

To: Rocco D'Alessandro

cc: Len Gilmore
Ted Lenart

Executive **Summary**

The Yorkville Project has been re-evaluated due to ANR's in-service date delays, increased construction and FERC filing costs. Also, Nicor Gas' operating personnel have re-emphasized issues with the location of transmission facilities.

October 31, 2002
Alternate 1
ANR 8" lateral
Estimated Costs $7,668,000
Nov. 1,2003 In-service date
NPV ($9,843,000)

October 31.2002
Alternate 5
Nicor Gas 12" lateral, distribution station at end of **lateral**
Estimated Costs $9,000,000
Nov. 1,2003 In-service date
NPV ($12,159,000)

February 14.2003
Alternate 1 (ANR's revised estimated costs)
ANR 8" lateral, 7 C filing, 2004 costs
Estimated **Costs** $8,148,000
Nov. 1,2004 "Best case" In-service date
NPV ($11,400,000)

February 14.2003
Alternate 5A
Nicor 12" lateral, distribution station at Rte 47
Estimated Costs $9,030,000
October 1, 2004 In-service date
NPV ($12,200,000)

Listed below is a brief summary of the benefits of Alternate 5A. Further discussion of these benefits for Alternate 1 and 5A can be found in the Analysis.

- ANR delays *and* additional construction and filing costs,
- Better location for transmission facilities (noise and odorant),
- Lower **operating** pressures in a residential area (800 vs. 155),
- **Less** ANR meter casts *in* future **and** Nicor Gas can control locations of distribution supplies,
- Distribution headers (smaller diameter) and easy access to distribution headers,
- Allows immediate service to Rte 47 (skipping developments),
- Alternate source to supply lateral from Troy Grove Line in future,
- Increased capacity of lateral (Alternate 5A).

ANR is willing to provide the **same** pricing for upstream transportation services in either Alternate. The capital recovery costs **charge** will change proportionately to the capital costs incurred by ANR.

I recommend that Nicor Gas revise its original decision (Alternate I) and proceed **with** the Alternate 5A, due to the benefits mentioned above. **ANR's** firm transportation charge plus ANR's capital recovery costs will be $0.1692/Dth/day at 100% Load Factor over a 5-year term for 25,000 dth/day.

Analysis

Reason for re-evaluation

New information received from ANR and discussions with Nicor Gas' operating personnel have led to a re-evaluation of the Yorkville Project recommendation made in the October 31, 2002 memo. First, ANR, during a resent visit and in a follow-up email, informed Nicor Gas that the Yorkville project would likely require more time to install then they originally anticipated due to FERC filing procedures. The in-service date would be revised from November 1,2003 to November 1,2004 on a "Best case" scenario, and could even be delayed to the following year. Second, ANR's estimated costs to install these facilities have increased.

Third, Nicor Gas' operating personnel have re-emphasized an issue regarding the installation of a transmission station in a residential area. Forth, an evaluation of plans for growth and long-term system requirements has been considered. Finally, the impact of the location of necessary facilities has been considered.

Based on these considerations, I have revisited the memo dated October 31,2002 regarding Yorkville. This memo discussed five alternatives that meet the two objectives outlined, system integrity and growth. These alternatives compare costs to construct, operate and maintain these facilities. Using these costs, a financial analysis was completed to compare the five alternates. Operating issues were not evaluated in this process.

Alternates 1 and 5

This memo will only discuss the two lowest costs alternatives in the October 31,2002 memo. Alternative 1, which would require ANR to install 8.1 miles of 8" pipe operating at their transmission line pressures (near 800 psig), a meter station and Nicor Gas to install a transmission station (estimated total capital costs at $7.7 million). Alternative 5, would require ANR to build a meter station at their mainline tap, then Nicor Gas would install a transmission station, to reduce the operating pressure to 300 psig, 8.1 miles of 12" pipe and a distribution station (estimated total capital costs at $9.0 million). Alternative 1 was recommended due to a financial analysis that indicated it was the lowest costs for our ratepayers on a Net Present Value basis comparing project-to-project costs by an amount of $2,316,000.

Objective

This memo will discuss ANR's and Nicor Gas' operating issues in more detail. The two best alternates will be compared on their effects on each issue and their benefits to Nicor Gas and it's customers. The issues that are discussed are not evaluated on a strictly financial basis, due to the nature of the new considerations. To better understand how these issues are of value to the entire system, the benefits and or concerns of these alternatives are analyzed from an operating and engineering perspective.

A financial analysis was completed using the revised ANR costs estimates for Alternate 1 and 5A. This analysis includes costs for future facilities required by Engineering to serve to new customers located along Rte 47 for these alternates. This is further discussed in the Larger Distribution Headers section.

ANR

Delays and Additional Costs

ANR has informed Nicor Gas that if ANR installs the lateral, the in-service date would be delayed until November 1,2004 and possibly November 1, 2005. During the time period that ANR was completing the*. costs estimate, the route that they initially selected had only a few landowners. ANR, after further consideration, chose a shorter route with significantly more landowners. As ANR considered the additional landowners, they felt that their filing process with FERC should be changed from a "blanket certification" filing to a "7 C" filing. A 7 C filing requires additional studies, reporting and posting time periods before any field activities can be started. The later in-service date delay reduces the benefit of this alternative due to the concerns for system security and growth. Alternate 1 construction is under the control of ANR.

If Nicor Gas installed the lateral, Nicor Gas would have different requirements than ANR. Under Nicor Gas' blanket certification, no filing delays would be anticipated. Nicor Gas' Real Estate and Engineering departments would chose a route that is cost effective and could better meet our time requirements.

ANR has revised their cost estimate to include their 7 C filing costs and increases in 2004 construction costs. This additional cost will reduce the benefits of Alternate 1. ANR's new estimate has increased ANR's portion of the construction costs from $6,926,000 to $7,405,000. The new total estimated cost of Alternate 1 has increased from $7,668,000 to $8,148,000.

Nicor Gas' Operating Concerns with Alternate 1

Transmission Facilities Location

Alternate 1 would require Nicor Gas to install a transmission station near an existing residential subdivision and two newly proposed residential subdivisions. As mentioned in the October 31,2002 memo, operating personnel have identified issues with operating transmission facilities in a residential community. This station will require a pipeline heater, odorizer and regulators. A pipeline heater can be a nuisance-type problem for operating personnel due to the noise they some times create during their operation. Operations personnel respond to near-by neighbor's inquiries regarding this noise.

ANR, as most pipelines transport unodorized gas to our system. Therefore, to meet DOT requirements, an odorizer is required to inject odorant. In Alternate 1, the odorizer would he installed adjacent to residential subdivisions. The odorant liquid injected into our gas stream is extremely potent. Even though our personnel take every precaution with the design and handling of this equipment and liquid, the odorant smell is never completely contained. In attempts to reduce the impact on neighbors, our operating personnel take remedial action to minimize the external smell. They also communicate with our customers to make them feel comfortable, safe and secure. A majority of Nicor Gas' odorizers have been installed in remote locations, which helps to minimize this issue. As growth continues in several areas of our company, a few of our existing odorizers locations have been surrounded by commercial and residential developments.

800 Psig Lateral

Alternate 1 requires ANR to operate their lateral at the same operating pressures as their mainline transmission system (approximately 800 psig). As described in the October 31,2002 memo, Nicor Gas' operating personnel are uncomfortable with Nicor Gas operating a lateral at this pressure. ANR is comfortable with this operating pressure due to their experience in Wisconsin. Even though this is an ANR lateral, Nicor Gas operating personnel have identified a new issue with maintaining this line during emergency situations that could affect the reliability of service to customers in this area. To make repairs on this line, operating at 800 psig, ANR would likely take the line out-of-service. If the line was operated at lower pressures and less restrictive DOT requirements were involved, other methods of repairs would be used This would lower the risk of interrupting our customers.

ANR Meter Costs

Alternate 1 restricts the number of potential sites for future interconnects due to the costs of ANR's meter installations. Each ANR meter site installation would costs between $700,000 and $1,000,000, plus Nicor Gas' transmission station costs between $500,000 to $800,000. In addition to meter site costs, these locations require mutual agreement between both parties. However, if this line was owned and operated by Nicor Gas, Engineering and Operations could chose any site to install a distribution station/vault to reduce pressure to our distribution system at the lowest costs, the greatest operational benefits and for multiple locations.

Larger Distribution Headers

Initially, one ANR meter station would be built at the end of the lateral. As development continues westward, another meter station could be installed near the midpoint of the lateral. ANR's meter locations would be further apart than if Nicor Gas installed the facilities because ANR would minimize the number of meter sites. ANR's 8" lateral, which operates at 800 psig, would supply Nicor Gas' transmission station at the east-end of the lateral. This will require Nicor Gas to: (i) install larger distribution headers to transport more gas back to the west to supply the growth area or (ii) install additional meter stations along the ANR lateral. If large headers were required to be installed and/or additional ANR meter sites, additional costs would be incurred to serve the same customer demand. On the other hand, if Nicor Gas installed the 12" lateral that would operate at 300 psig, and then Nicor Gas would install additional distribution stations and/or vaults to supply lower order systems as needed. These stations and/or vaults could be installed at lower costs, at more locations and at more desirable sites.

Skipping Parcels

Developers of commercial, residential and industrial areas will buy land where they can purchase it at reasonable prices and where their sites are most marketable. This leads to land parcels being skipped for later developments. This will very likely to happen in this area. Developers, especially commercial developers, are likely to jump to the

Rte 47 corridor soon to develop this area in a north-south direction, before all the parcels in between can be connected to the distribution system directly. With this in mind, if ANR installed the lateral, Nicor Gas would have to install the larger headers and/or additional ANR meter sites as described above and earlier to supply this possible skipping of parcels. Otherwise. if Nicor Gas installed the lateral. Nicor Gas could install the distribution station initially at Rte 47 to supply this likely development. This would reduce the investment required. Engineering, System Planning, will benefit from this plan by reducing the time period required in advance to design header systems to supply projected growth.

Troy Grove Line (Benefit Described in October 31,2002 memo)

The location of the ANR's tap to supply the Yorkville area is approximately 1 mile east of Nicor Gas' Tray Grove transmission line. Nicor Gas could benefit in the future by connecting the Troy Grove line to this lateral supplying the Yorkville area. Operating personnel would have the flexibility to supply this area from either the Troy Grove line or ANR, if Nicor Gas installed the lateral. If ANR installed the lateral, the pressures in ANR's lateral would be greater than the Troy Grove line; therefore, no additional benefits would be realized for the Yorkville area by connecting to the Troy Grove line.

Capacity

Alternate 5 could be altered slightly to increase the capacity immediately by about 15%, which will increase its benefit. The distribution station could be located at or near Rte 47 instead of at the end of the lateral (2.2 miles upstream from tie-in point to our distribution system). This will provide some of the benefits discussed below, such as the ability to serve the Route 47 comdor immediately, provide more capacity (approximately15%) and eliminate the installation of our distribution station adjacent to an existing residential areas as described in Alternate 5. By revising this alternate, Altemate 5A, will have more capacity than Altemate 1. Engineering has estimated the total costs of this Altemate 5A to be $9,030,000.

Conclusions

In the October 31,2002 memo, the financial analysis indicated that Altemate 1 and Altemate 5 had a Net Present Value of ($9,843,000) and ($12,159,000) respectively. As mentioned above, this analysis, compared the costs of the installing, operating and maintaining these alternates, but did not include all the items discussed in this memo. The operating discussions are intangible items that can be short and/or long term in nature. These issues, in addition to ANR's higher construction costs and in-service delays should be valued during the decision process. A new financial analysis was completed using the revised cost estimates for Alternate 1 and Altemate 5A on a NPV basis which are ($11,400,000) and ($12,200,000) respectively.

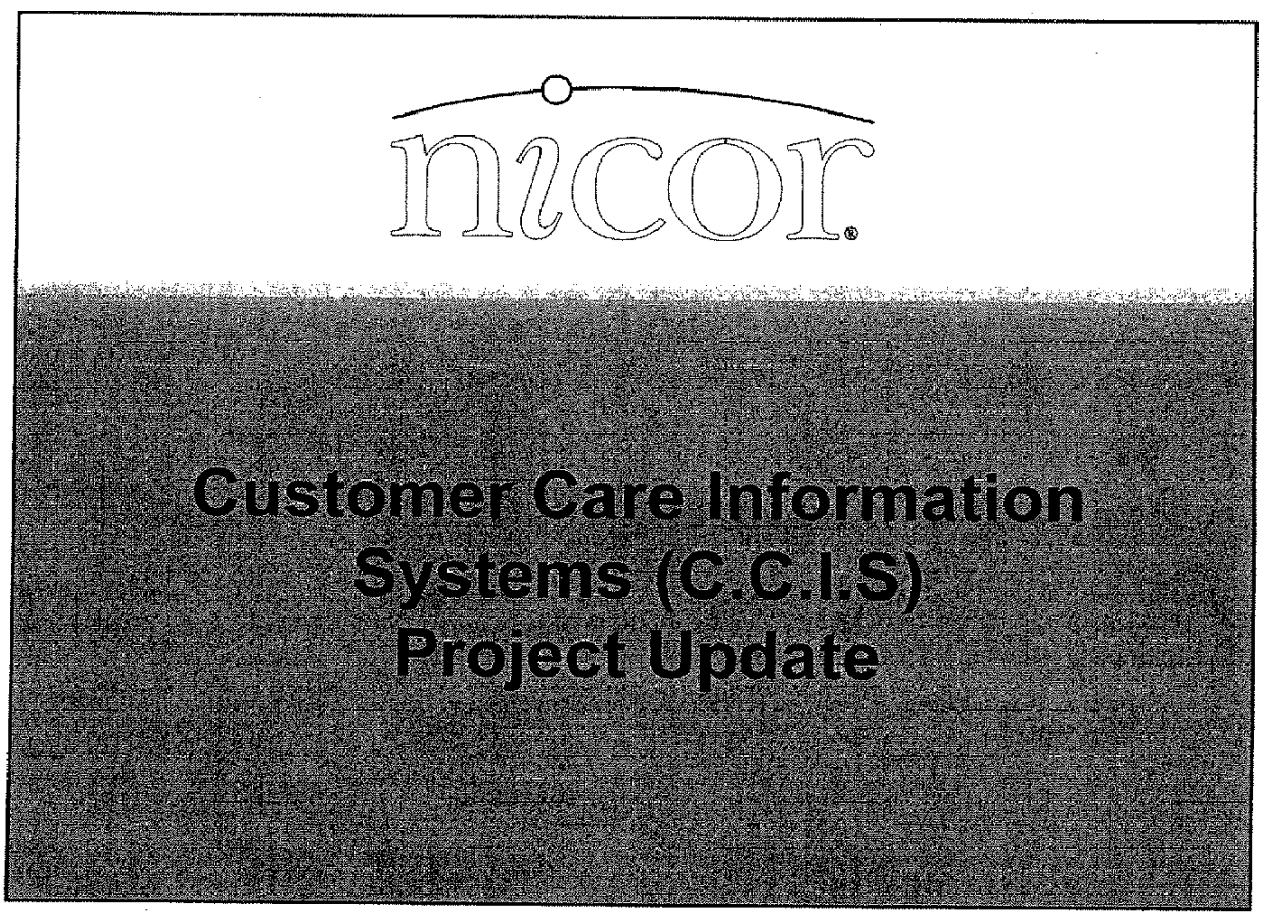
Even though Alternate 5A's estimated project costs ($9,030,000) are still higher than Alternate 1's revised estimated project costs ($8,148,00 due to ANR's FERC filing 7 C and increased construction costs), I believe Alternate 5A is a better choice based on qualitative reasons previously discussed and less future costs.

If you require additional information on this project, please contact me.

WP (F-4) 6

Credit Project

BOARD MEETING
Sept. 20,2001


nicor
Customer Care Information Systems (C.C.I.S)
Project Update

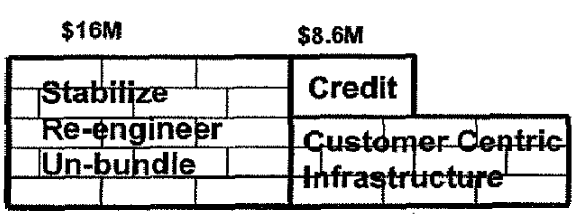
Financial Analysis
($ millions)

	Capital Dollars	
	Approval	**Spending**
Previous Requests		
2000	$8.4	$5.9
2001	7.6	6.5
Carryover 2002		3.6
	16.0	16.0
Current Request	8.6	8.6
Total	$24.6	$24.6

nucor

CCISP and Beyond...

Building the Foundation for Customer Value



nicor

Benefits Annualized
(Thousands)

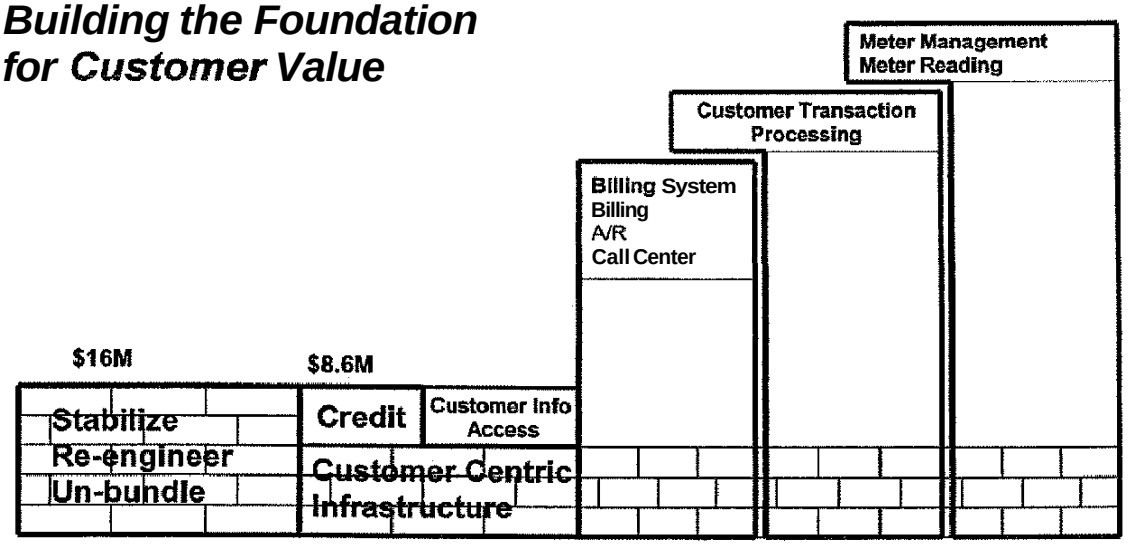
Reduced Bad Debt:		$2,000
• Multiple Credit Cycles		
• Credit Scores		
• Commercial Applications		
Avoided Costs:		$1,000
• Additional Disconnections		
• Collection Fees		
• NSF Checks		
• Customer Care		
• IS Support		
Increase in Cash Flow		**$ 100**
Subtotal of Benefits		**$3,100**
NPV @ 10%	$2,338	
Internal Rate of Return	15%	

nicor

CCISP and Beyond...

2005 -07

Building the Foundation for Customer Value



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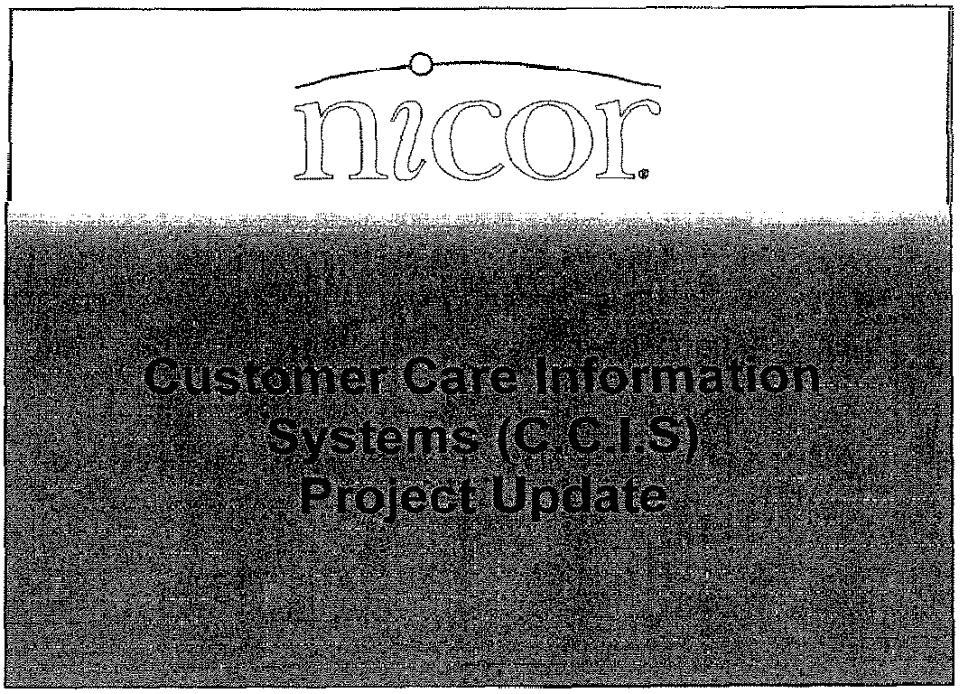


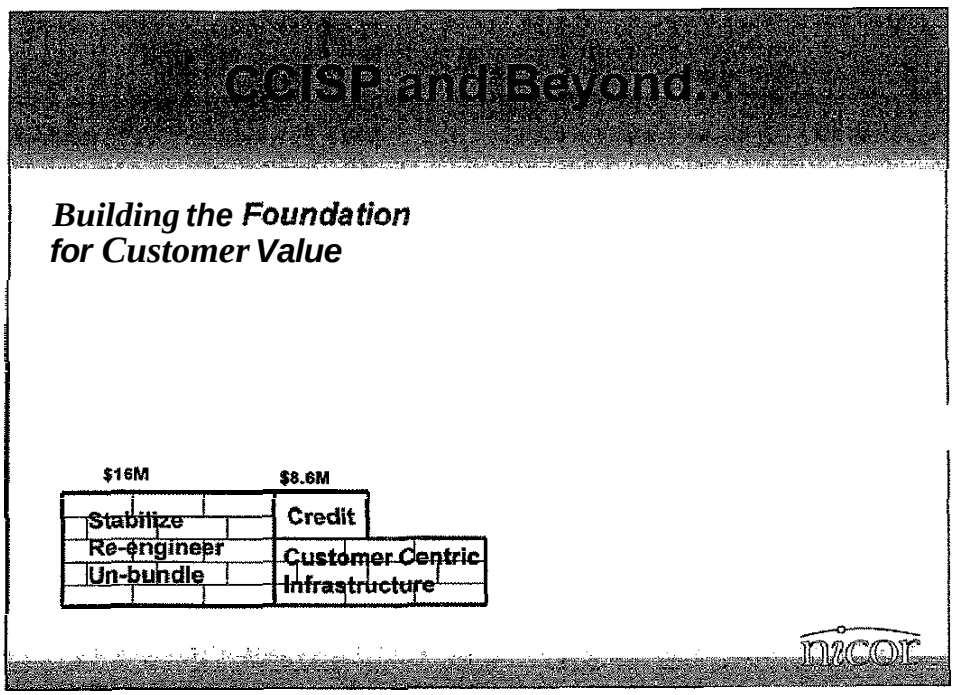
Today, I would like to ask your approvd for *$8.6* Million for additional funding for the Customer Care Information System Project.

Financial Analysis ($ millions)

	Capital Dollars	
	Approval	Spending
Previous Requests		
2000	$8.4	$5.9
2001	7.6	6.5
Carryover 2002		3.6
	16.0	16.0
Current Request	8.6	8.6
Total	$24.6	$24.6

nucor

- Previously, you approved capital spending of $16M
- The current plans for the project will be completed next year, culminating with the requirements for unbundling.
- The additional funding requested for next year will allow for the implementation of a credit and collection package.

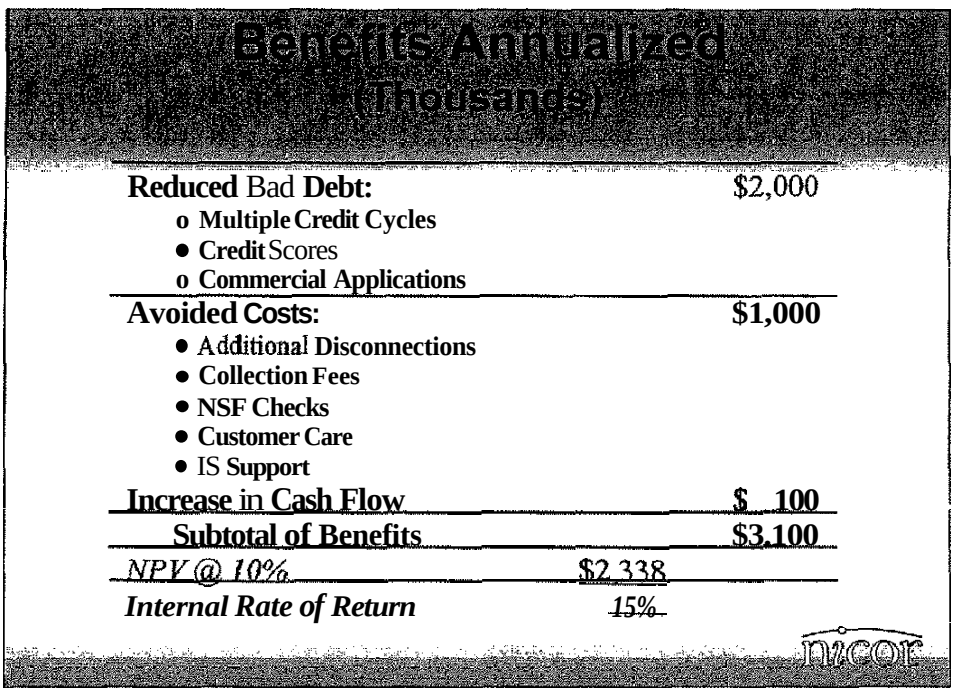


I would like to review WHY we need to do this project.

- Current Legacy System was designed in 1968
- Many business function and processes were created in one large primary program we call our Customer Information System.
- We have evaluated many alternatives:

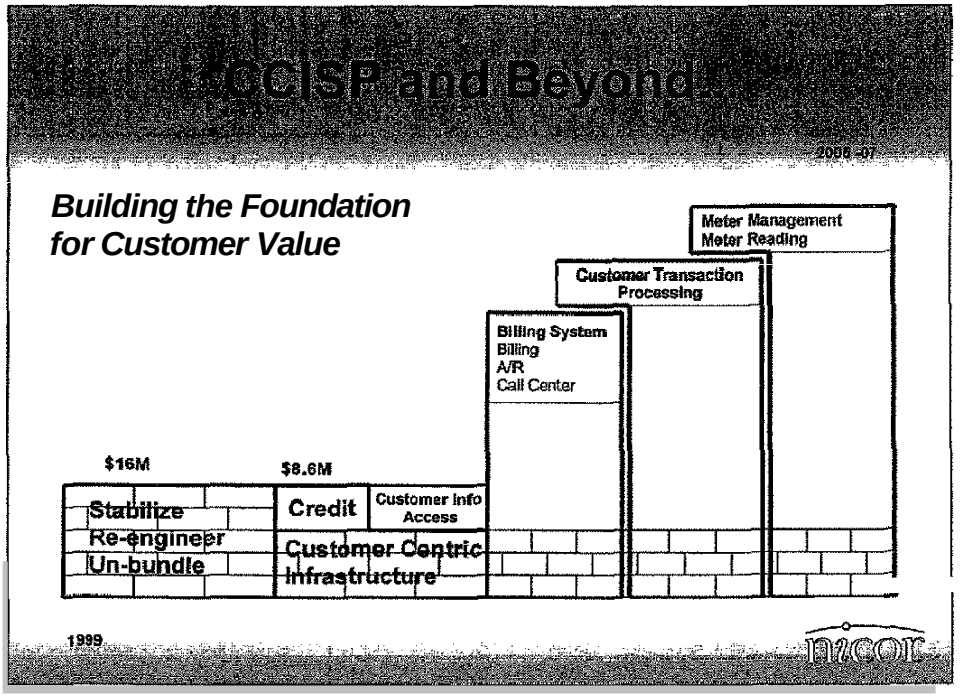
  Purchase Full Package, Outsource, Functional Migration (Phased Implementation), Continue As IS.
- We realized that Continue As Is was not a viable alternative.

- A decision was made to to stabilize our development environment and to re-engineer I.e., remove bottlenecks in the billing systems to enhance Nicor's ability to meet future needs. The CCISP project is a intermediate term solution for the next five to seven years.
- Today I am requesting funding for the next piece of our foundation - $8.6M to implement a package that will meet our growing credit business requirements.



My previous funding request were not driven by direct economic justification, but rather were required to meet the future needs of business processes. Our decision to approve this project could only be justified based on the need to begin to functionally migrate off our 30+ year old system.

We have created a business case showing the opportunity for annual savings of $2-3 million range for the implementation of the credit and collection package. These benefits are primarily driven by using standard credit and collection procedures and practices that are readily available in today's credit packages. By focusing our efforts on individual customer's behavior and tailoring our credit actions to specific types of customers we can have a direct impact on bad debt.



- In addition, we will be establishing a customer system foundation that can be leveraged to build our long term solution. The selected vendor can provide our future billing system and other related processes, including customer self-service 'e-care" solutions.
- Extensive analysis and planning will be necessary before proceeding beyond the credit application.

FPC MEETING
Sept. 13,2001

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MEMORANDUM

Date: September 11,2001

Subject: FPC Meeting Material – CCISP Credit Package Implementation

From: Dan Rourke

To: George Behrens
Phil Cali
Tom Fisher
Kathy Halloran
Russ Strobel

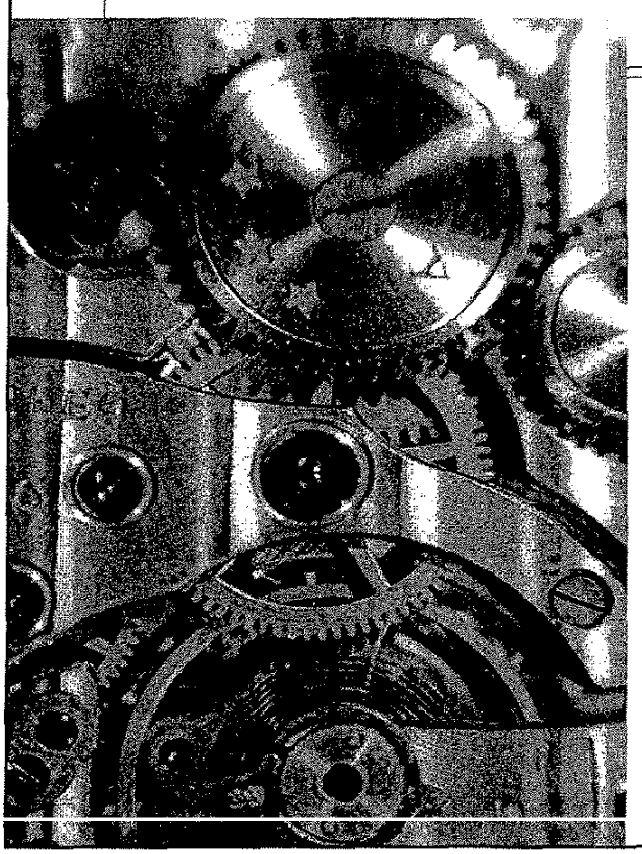
cc: Rocco D'Alessandro
Barbara Zeller

In preparation of the Financial Policy Committee meeting scheduled for September 13,2001, please find attached two documents for the CCIS Project Credit Package implementation:

- High-level Power-paint overview
  Detailed business case.

Please review this material as necessary prior to the Financial Policy Committee meeting. We will only review a select number of slides at the FPC meeting. If you have **any** questions in advance, please do not hesitate to contact me at extension 2100.

Attachments



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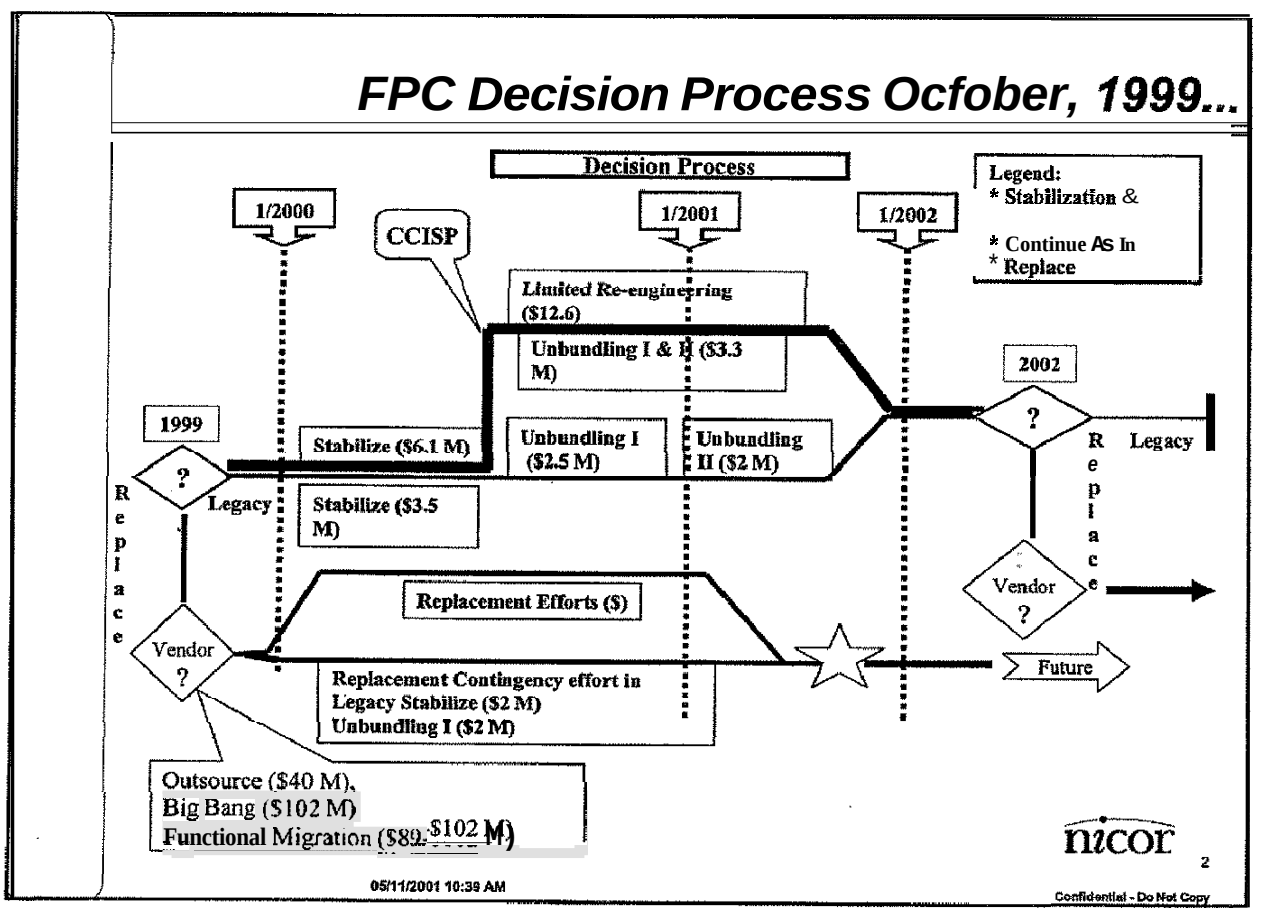
Credit and Collections Implementation Project

September 13,2001

Agenda

- FPC Decision Process October, 1999
- CCISP and Beyond
- Credit Package Cost Summary
- Business Rationale
- Business Value
- Benefit Summary
- Business and Operational Value
- Lost Opportunities
- Other Impacts
- Desired Outcomes
- Conclusion


FPC Decision Process Ocfober, 1999...
Decision Process
1/2000
CCISP
1/2001
1/2002
Legend:
* Stabilization &
* Continue AS In
* Replace
Limited Re-engineering ($12.6)
Unbundling I & II ($3.3 M)
2002
1999
Stabilize ($6.1 M)
Unbundling I ($2.5 M)
Unbundling II ($2 M)
Legacy
Stabilize ($3.5 M)
Replacement Efforts ($)
Vendor ?
Future
Replacement Contingency effort in Legacy Stabilize ($2 M) Unbundling I ($2 M)
Outsource ($40 M),
Big Bang ($102 M)
Functional Migration ($89-$102 M)
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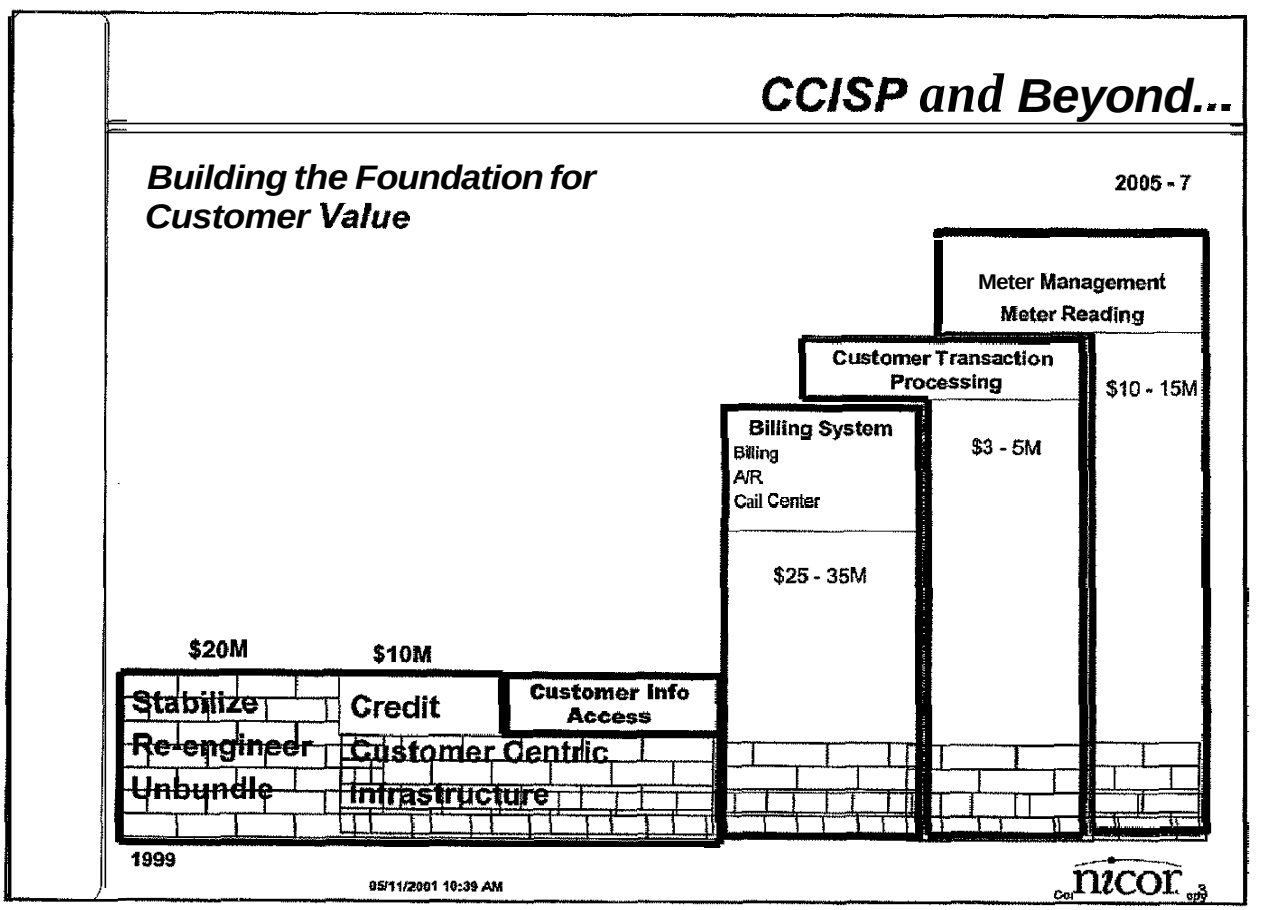
CCISP and Beyond...
Building the Foundation for Customer Value
2005 - 7
Meter Management
Meter Reading
Customer Transaction Processing
$10 - 15M
Billing System
Billing
A/R
Call Center
$3 - 5M
$25 - 35M
$20M
$10M
Stabilize
Re-engineer
Unbundle
Credit
Customer Info Access
Customer Centric Infrastructure
1999
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Credit Package Financial Analysis

	Effort Days (6000)	Capital Dollars (M)	OE Dollars (M)	Total Dollars (M)
Resources				
Nicor	50%			
SPL	10%			
Accenture	25%			
Keane/Revere	15%			
		5.7	1.4	7.1
Hardware/Software		2.9		2.9
Total		8.6	1.4	10.0

FIXED BID

Project timeline: November, 2001 to August, 2002

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Business Rationale

Historically, in the regulated environment Nicor has had a premise/location based billing system which was adequate when one size fits all.

So what needs to change?

- Focus on an individual's behavior and take select credit actions on the "right" customers
- Legacy systems built more than 25 years ago have continued to evolve over time: however, the credit and collection system inhibits Nicor's ability to respond timely to business changes.
- Recent e c mie ch ng s o up ed with the desire to respond to the competitive market has renewed Nicor's desire to be customer centric

*"The **ultimate benefit** of employing **custom** collection scores combined with ll efully 1 decision rules, result in not just faster decisions, but **better**, higher **quality** decisions as well".*
(Business *Credit* a NACM *Publication 2/2000)*

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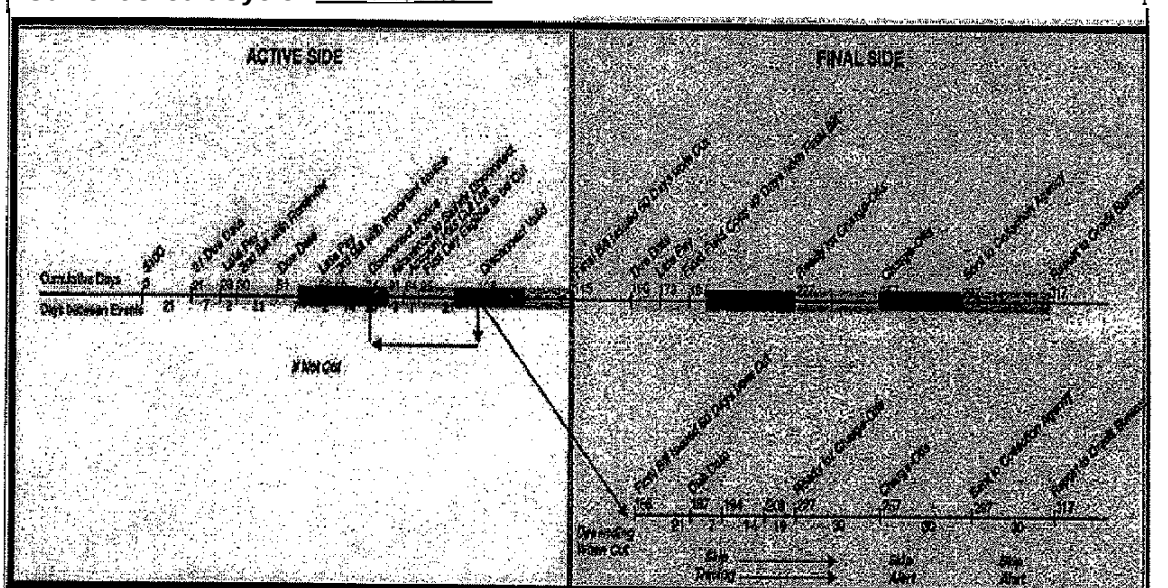
Business Rationale

Current Credit Cycle - *One Size Fits AN*



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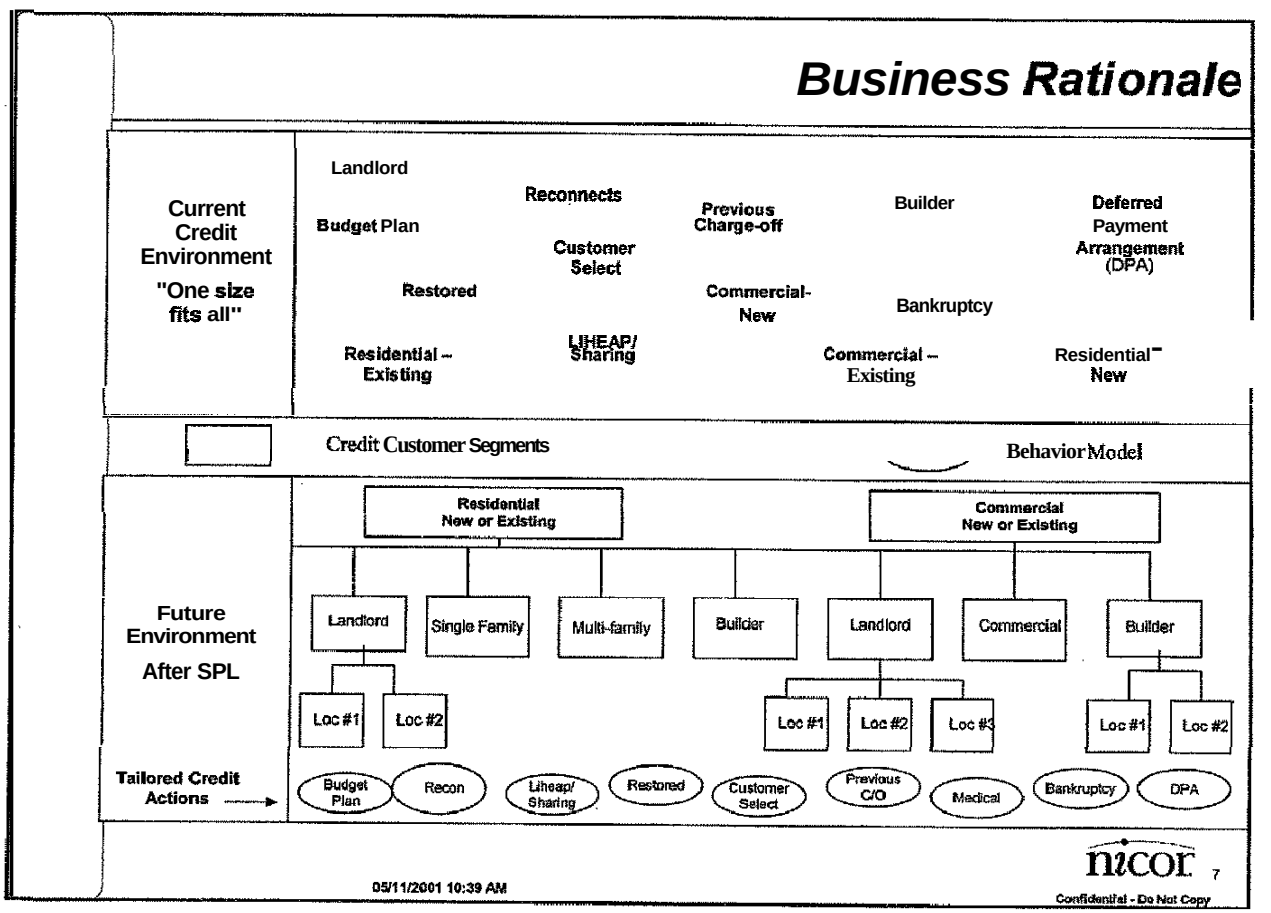
Business Rationale
Current Credit Environment
"One size fits all"
Landlord
Reconnects
Budget Plan
Previous Charge-off
Builder
Deferred Payment Arrangement (DPA)
Customer Select
Restored
Commercial-New
Bankruptcy
Residential – Existing
LIHEAP/ Sharing
Commercial – Existing
Residential – New
Credit Customer Segments
Behavior Model
Future Environment
After SPL
Residential New or Existing
Commercial New or Existing
Landlord
Single Family
Multi-family
Builder
Landlord
Commercial
Builder
Loc #1
Loc #2
Loc #1
Loc #2
Loc #3
Loc #1
Loc #2
Tailored Credit Actions
Budget Plan
Recon
Liheap/ Sharing
Restored
Customer Select
Previous C/O
Medical
Bankruptcy
DPA
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Business Value

What's Changing ?	Current Capabiiities	Future Features & Functionality	Benefits
Behavior model	Not available	Able to identify, quantify, & qualify customer segments	▪ Reduced charge-off • Improved risk assessment • Visibility to customer segments ▪ Added capability t score customers ▪ Better forecasting of reserves
Customer Segments	Employs a "one size fits all" model - no segmentation or behavioral model exists	Able to tailor actions to credit customers' behavior	▪ Improved cost benefit for operating costs ▪ Decreased turn-off/turn-on costs • Increased impact of credit actions • Better return for credit investment ▪ More proactive decision making
Track and Measure	Tracks specialized programs manually	Able to track and measure through an automated method	• Increased knowledge management • Increased resource management

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FBenefit/Analysis

Benefits Annualized

	(Thousands)
Reduction in Charge-Off •Multiple Credit Cycles •Collection Agencies Commercial Applications	$2,000
Maintain Charge-Off •Additional Cuts Collection Fees •Auto Transfers •NSF Checks •Customer Care 'IS Support	$1,000
Increase in Cash Flow	$ 100
Subtotal of Benefits	**$3,100**

Project Equity NPV @ 10%	$2,338
Internal Rate of Return	15%

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